

AMERICAN  
OPTICAL  
COMPANY

Digitized by Illinois College of Optometry



~~1827~~



This Catalogue is presented to

W.B. Dixon, O.D.

No 4894

with the compliments of

American Optical Company

Southbridge, Mass., U.S.A.

New York  
Chicago

San Francisco  
London



PROPERTY OF  
CHICAGO COLLEGE OF OPTOMETRY  
LIBRARY

REUBEN SEID  
MEMORIAL LIBRARY  
CHICAGO COLLEGE OF OPTOMETRY

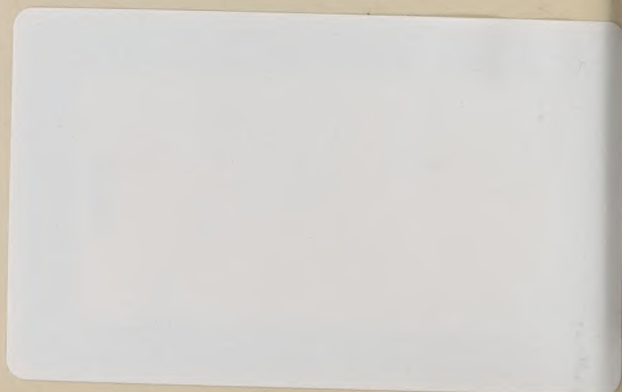
GIFT OF

V. B. DIXSON, O. D.

The Carl F. Shepard Memorial Library  
ILLINOIS COLLEGE OF OPTOMETRY  
3241 S. Michigan Avenue  
Chicago 16, Illinois



Digitized by Illinois College of Optometry





535  
A35

6328

# AMERICAN OPTICAL COMPANY

ESTABLISHED - - - 1833  
INCORPORATED - - - 1869



GEORGE W. WELLS - - President  
CHANNING M. WELLS Vice-President  
ALBERT B. WELLS - - Treasurer  
J. CHENEY WELLS - - Secretary

SOUTHBRIDGE MASSACHUSETTS U S A

NEW YORK CHICAGO SAN FRANCISCO

No 39 HATTON GARDEN LONDON E C ENGLAND

CABLE ADDRESS AMOPTICO





CHANNING M. WELLS, *Vice-President*

Carl F. Shepard Memorial Library  
Illinois College of Optometry

6328





ALBERT B. WELLS, *Treasurer*





J. CHENEY WELLS, *Secretary*





## INTRODUCTION

THE first AOC Co general catalogue was published in 1894. In the interim, the business of the American Optical Company has attained proportions which could not be foreseen at that time. Growth and development have been so rapid that, while fully realizing the importance of issuing a complete catalogue which should be a reference work as well, it has not been found possible until the present time to properly compile such a work.

Thirty years ago, the amount of detail had reached a point where the need of system and generally accepted standards forcibly presented itself. Without a serious effort at standardization, development in the manufacture of optical goods would have been retarded, the rapid addition of new lines resulting in hopeless confusion. The problem was then seriously taken in hand in connection with the AOC Co products and it has been the subject of constant study and effort ever since.

AOC Co systems and nomenclature have been accepted the world over, and acknowledgment is due here of our appreciation of the generous support accorded our efforts at systematizing and standardizing the ever increasing detail of optical products. But for this foundation, based on the work of more than thirty years, a reference work of any value would have been out of the question.

The business of the American Optical Company is built upon the integrity of its products. During a manufacturing experience of more than three-quarters of a century, close adherence to a definitely settled policy to produce nothing unworthy of bearing the AOC Co trade mark, has been responsible for the growth the company has attained and the world-wide endorsement its products have received. Our purpose is not alone to maintain the same high standard of quality and service, but to raise it whenever that is found possible.

AMERICAN OPTICAL COMPANY



## HISTORICAL—1833-1912

IT is impossible to detail the existence of the American Optical Company without, in a large measure, writing the history of the American optical industry as a whole, for the latter had its inception in the town of Southbridge. During the past eighty years, scores of firms devoted to the manufacture of optical wares have come and gone—some of them right here in Southbridge. Even their names are forgotten in a majority of instances.

To William Beecher belongs the distinction of having inaugurated what has since grown to be an industry of far-reaching importance. Optical wares were made at an earlier date in other places, but their manufacture was not continued steadily or developed to any great degree. Beecher was the son of a Connecticut farmer and first came to Southbridge in 1826 to establish himself as a jeweler, having previously served an apprenticeship in that business in Providence. Seven years later he undertook the manufacture of spectacles as a means of expanding his business. This was in 1833 and an upstairs room of the store served as a shop where Beecher and his three apprentices began the making of spectacles. One of these apprentices was Robert H. Cole.



Original Factory of American Optical Company  
Occupied until 1872

Silver spectacles were the first articles made, and instead of following the crude and laborious hand methods then in vogue, Beecher, who was a skilful mechanic of rare genius, invented many tools and devices for spectacle manufacture which materially lessened the cost of production. Though only undertaken as a side issue at first, the business soon grew to such an extent that new quarters were occupied in 1839. This building still stands and was employed for the manufacture of optical goods up to comparatively recent times.

It was undoubtedly due to Beecher's enterprise and genius that Southbridge became the center of the American optical industry, as the numerous apprentices who acquired their knowledge of the business from him were largely responsible for its subsequent growth.

From the small beginning in silver spectacles, the output was extended to embrace everything then in demand, most of such products having been imported up to that time. It was generally thought that many of them could not be manufactured here, and a typical instance of the manner in which Beecher set about to alter this condition is illustrated by his undertaking the manufacture of steel spectacles. An imported sample pair cost him \$3, but as the result of experimenting with them, he soon succeeded in adding steel spectacles to his line; these undoubtedly were the first to be made in this country.

Mr. Beecher continued to manufacture optical goods until 1840, when he transferred his entire interest to the firm of Ammidown & Putney. In 1851 he again acquired an



interest in the business, the firm then being known as Ammidown & Company and consisting of L. H. Ammidown, Robert H. Cole and William Beecher.

A brief resumé of the changes in interest that took place between the inception of the business in 1833, and its incorporation as the American Optical Company in 1869 will make clear how largely its success has been dependent upon the efforts of a comparatively small number of men.



First Factory erected on present site of Main Works, 1872

1833-1840 William Beecher.  
1840-1842 Ammidown & Putney (L. H. Ammidown and Jairus Putney).

1842-1849 Ammidown & Son (L. H. Ammidown and Holdridge Ammidown).

1850-1851 Ammidown & Company (L. H. Ammidown and Robert H. Cole).

1851-1854 Ammidown & Company (L. H. Ammidown, Robert H. Cole and William Beecher).

1854-1859 Ammidown & Company (Holdridge Ammidown, Robert H. Cole and William Beecher).

1860-1862 Beecher & Cole (William Beecher, Robert H. Cole and E. Merritt Cole).

1862-1866 Robert H. Cole & Company (Robert H. Cole and E. Merritt Cole).

1866-1869 Robert H. Cole & Company (Robert H. Cole, E. Merritt Cole and A. M. Cheney).

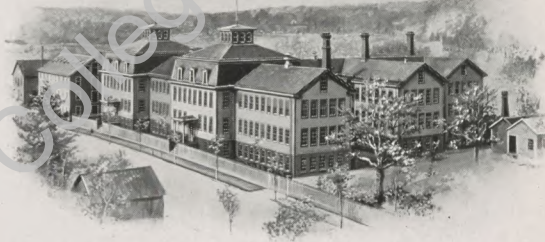
1869- American Optical Company (Robert H. Cole, President; George W. Wells, Clerk; E. Merritt Cole, Treasurer).

The following list of goods manufactured in 1850 will give some idea of the range of the business at that time:

Gold, coin silver and steel spectacles.  
Steel spring eyeglasses.  
Quizzing glasses, plated and wire goggles.  
Eye protectors.  
Split glass spectacles (made to order).

Gold work was first undertaken under L. H. Ammidown in 1848. The gold wire was difficult to obtain and more so to work. No dies were used for cutting, all work being filed. The materials employed for both gold and silver wares were mostly coin, California \$50 gold pieces, French crowns and Portuguese dollars being noted in early records.

Mention is first made of a patent under date of October 31, 1850. This was for a temple and was granted to John P. Paine. Royalties of five cents for each pair of silver spectacles and twenty cents for each gold pair were paid. Most of the goods were marketed through wholesalers in New York and Boston, though large quantities were disposed of by salesmen who bought and sold goods on their own responsibility; in other words, small itinerant merchants.



Extension of factory buildings, completed 1883





# MAIN FACTORIES

Spectacle and Eyeglass Frames, Mountings, Material, Cases and Accessories, Trial Sets, Trial Frames and Accessories, Optical Machinery and Tools, Etc.  
 Floor space 346,000 square feet. Over 1500 employees



The yearly sales between 1850 and 1869 show an increase from \$12,750 in 1850 to \$50,400 in 1868, there naturally being a dull period during the Civil War. The capital invested in 1843 was \$4488.40. In 1851 it was \$6000 and in 1860, \$8250. The average number of employees between 1848 and 1866 was thirteen.

Up to the summer of 1853 a water wheel had been employed for running the machinery. One-man power in the shape of a burly negro taking its place when Cohasse brook was low. By that time, business had increased to such an extent that a small oscillating cylinder steam engine was installed, this constituting quite an event.

By referring to the summary given, it will be seen that William Beecher and Robert H. Cole were most prominently identified with the business and were associated with it for the longest period during its early history. On April 2, 1864, George W. Wells entered the employ of Robert H. Cole & Company. He was eighteen at the time and was one of the first to undertake the making of spectacles without having previously served an apprenticeship of three years or more. The subsequent history of the American Optical Company reveals how important a part he played in its development and expansion during the nearly fifty years he has been identified with it.

Lack of business brought about a change of employment for a few months, Mr. Wells entering a machine shop, but at the request of Mr. Cole, he returned April 1, 1865, and was taught the trade of steel spectacle making. At the end of a month he had mastered this work, making the complete spectacles, which included the setting of the lenses. They were termed "Fine Steel Ladies" and were the best quality of their kind then made. Mr. Wells was paid \$5.76 per dozen for turning them out. To-day a better quality frame sells for \$1.50 a dozen.

In September, 1865, due to a misunderstanding, Mr. Wells left and entered the employ of E. Edmonds & Son on piece work, making an average of \$75 a month, but at the earnest solicitation of his cousin, Alpha M. Cheney, on behalf of Mr. Cole, he again returned to the old firm, his wages being fixed at \$3 per day of ten hours, an unusual reward at that time for a boy of nineteen. Mr. Wells' great value to the concern lay in his ability to systematize and reduce the cost of production. His efforts were accordingly directed to developing machinery and special tools for that purpose. About this time, he applied the principle







### NEW LENSDALE FACTORIES

Spectacle and Eyeglass Lenses in all stages after grinding and polishing ; trial set lenses ; lens stock. Floor space 169,500 square feet. Over 600 employees

### THE POWER PLANT IS EQUIPPED WITH

Diesel and Steam Engines, Turbines, Etc., 2900 horse-power

Low pressure steam for heating, 2100 boiler horse-power. High pressure steam, 300 boiler horse-power





#### LENSDALE FACTORIES

Lens Moulding, Blocking, Grinding and Polishing. Physical and Chemical Research Laboratories. Storage of raw materials, glass, emery, pitch, polishing compounds, etc. Floor space 222,700 square feet. Over 400 employees




Office of Vice-President  
and Secretary


Main Stairway

of eccentric rolls to the tapering of stock for temples, and built the first lens cutting machine, after designs by E. M. Cole. In slightly modified form this machine is employed the world over by manufacturers and opticians.

Notable among the important inventions of George W. Wells were, the original machine for peening on end pieces, the first automatic machine for drilling and tapping end pieces and the first machine for jumping and forming spectacle bridges. These and many other devices for improving and increasing the production of spectacles gave a great impetus to the successful growth of this industry.



Entrance to Administration Building

With the exception of a period of six months, which Mr. Wells spent in a trip to California, he remained in the employ of Robert H. Cole & Company steadily until 1869. In January of that year he decided to start in the optical business with his brother, Hiram C. Wells. Places in New York and New Jersey were inspected as sites for a factory, the question being finally settled by purchasing a controlling interest in the H. C. Ammidown Company's plant in Southbridge.



Overtures were then made to Mr. Wells by Robert H. Cole to become a member of the firm of Robert H. Cole & Company. This was accepted upon condition that Hiram C. Wells be admitted to the partnership at the same time.



Early Types of Spectacles and Eyeglasses, prior to 1869.

Further negotiations led to the consolidation of the interests of H. C. Ammidown & Company and Robert H. Cole & Company in the American Optical Company. At the time of the incorporation Mr. Wells was not quite twenty-three. This was in the early part of 1869. There were at this time thirty-five people in the employ of Robert H. Cole & Company.

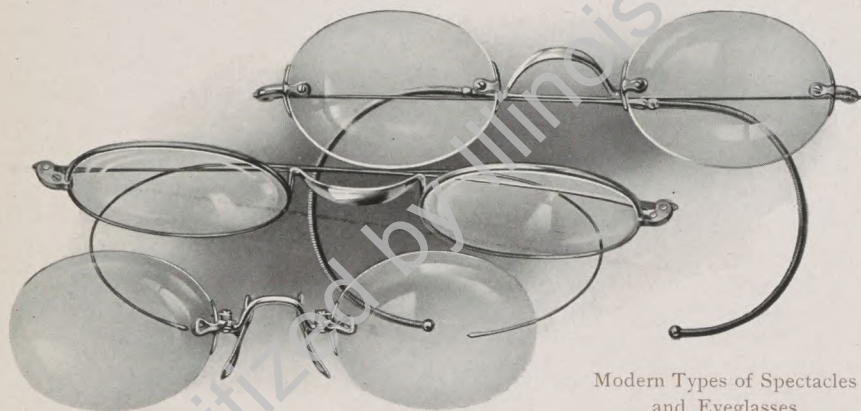
Briefly stated, the foregoing summarizes the events of a business history of thirty-six years that directly led up to the incorporation of the American Optical Company.

From that day to this the business has grown steadily, forging ahead as rapidly as was consistent with the establishment of a solid foundation for each new era of expansion. A total annual output of a little over fifty thousand dollars has been increased to an extent where the cost of the precious metals used as raw material alone is considerably in excess of a million dollars a year. From a staff of thirty-five, the working force has grown to more than twenty-five hundred.

Developments in factory buildings have been kept in advance of the requirements of the business during the past decade. Wooden structures have been replaced by modern brick buildings, and later construction is of reinforced concrete, the new Lensdale plant recently completed being representative of the highest type of this class of building.

As this is written there are some thirty-six structures laid out as three separate groups generally known as the Main, Lensdale and New Lensdale Works.

These buildings, which are shown on the foregoing pages, cover six acres of land in an estate embracing



Modern Types of Spectacles and Eyeglasses





European Branch of American Optical Company  
No. 39 Hatton Garden, London, E. C., England





Office of President and Treasurer

nearly fifty acres and providing a total floor space of over seventeen acres. In a perfectly appointed power station are centralized the control and distribution of thirty-five hundred horse-power in electricity, steam and hydraulic turbines supplying the necessary motive force, heat and light for the entire works.

Of the factors that have contributed to the upbuilding of this great enterprise, without question, the most important has been the integrity of its founders. The same painstaking care that William Beecher devoted to the making of those first silver spectacle frames in 1833 has been given to the manufacture of the product turned out ever since. The steadfast adherence to an ideal has been chiefly responsible for giving all goods bearing the AOC<sub>o</sub> trade marks the sterling character they now bear throughout the world.



Reception Room



Directors' Room





View from roof of Main Factories, Library and Purchasing Department





Order and Billing Departments

### SUGGESTIONS FOR ORDERING

While the following remarks are addressed to our customers, it is hoped that they may also be read by oculists and optometrists and that they will be guided by the suggestions made in placing orders with wholesalers. This will insure prompt and efficient service, enabling wholesalers to fill orders without guessing, which should never be expected in a business of such detail.

Our Order Department has positive instructions not to guess at anything. Orders are taken literally and we believe that it is less annoying to customers to reply to an occasional order inquiry than to receive goods of construction other than desired, occasioned by a misinterpretation of their wants.

Information relative to ordering Lenses will be found in the Lens Section of this catalogue.

Order Books We urge that customers always use our Order Books, a system originated by us which has proven beneficial to both wholesaler and manufacturer. This is important, as the rules governing the conduct of our Order Department require that all orders not written upon our blanks be copied, thus causing delay in entering. These Order Books are furnished free of charge and they enable customers to retain carbon copies of all orders for reference.

Order Number In referring to orders, always mention the factory order number given upon our acknowledgment postal, which number should be entered upon order copy.

General Suggestions Write all orders in dozens or fractions thereof. Avoid the use of ditto marks and questionable abbreviations.

Always give size of eye, karat of gold, quality of gold-filled and color of steel goods desired. In writing orders it is desirable that customers employ only such terms and expressions as are used in this catalogue or in our price list. The use of a variety of terms and expressions, all intended to be identical in meaning, is very confusing and leads to delays and errors which would be avoidable by adhering to those adopted by us.

Be explicit when ordering goods other than regular, and if you think there will be any possibility of doubt as to what is required, send a sample or request us to submit a sample before proceeding with the order.





Other Correspondence Do not write anything on the order sheet that does not pertain to that particular order; any correspondence or reference foreign to the order will necessarily delay the entering of it.

Samples If it is necessary to send samples, they should be marked plainly with the customer's name and order number on a tag securely fastened to the same. This is imperative.

If sample is forwarded, the order should plainly state for what purpose it is sent — that is, whether the goods are to be "exactly like sample" in every detail, or only like some special detail of sample, which should be clearly expressed.

Catalogue Number Always give our catalogue number; it is not necessary to specify details of construction which are carried by the number as described in the catalogue.

Advance Orders As orders are executed in rotation as received, it is advisable to anticipate requirements at all times. This may be facilitated by the keeping of records of the previous year's purchases, and by their aid orders may be placed intelligently a full year in advance.

Reserve Orders Under certain limitations and restrictions we accept reserve orders from our customers; that is, goods are made up in accordance with orders, but held in stock by us, subject to call, with the understanding that any part remaining in our possession will be shipped to the customer at the expiration of twelve months from date of original reserve order. Further explanation will be furnished upon request.

Periodical Shipments It has been found desirable by some of our customers to place advance orders to be shipped at regular intervals. By the aid of records of the sales of previous years, such orders may be placed intelligently, to be shipped once a month, twice a month, or weekly, as desired. When shipping date given is the first day of the month, we accept the same with the understanding that it will be as near that time as the volume of business will admit.

All orders placed for future delivery or for *reserve* will be accepted subject to the conditions governing prices, etc., which may be in effect at the time the goods are shipped.

*Orders in process of manufacture cannot be countermanded except with our consent.*

Order Inquiries are made on a special form. The reply should be written directly underneath our question and original sheet returned promptly. This is very important as the reply becomes a part of the original order completing our records. Further procedure on orders thus questioned depends almost entirely upon the promptness with which replies are returned.

Stamping Unless otherwise instructed all frames and mountings will be stamped with our registered trade marks and quality marks as explained on page 27.



Bridge Assortments The AOCo assortments of bridges (see pages 37 and 38) are always furnished unless otherwise specified. Bridges ordered to dimensions not in AOCo bridge systems are frequently subject to extra charges and always cause delays which may be avoided by ordering regular goods.

Riding, Half-riding and Cable Temple Frames are regularly furnished with "SS" Bridges.

Straight Temple Frames are regularly furnished with "C" Bridges unless otherwise ordered, except on "Patented Styles" in gold-filled and Alumnico, on which "SS" Bridges are supplied.

Reversible Temple Frames are regularly furnished with round wire hoop bridges unless otherwise ordered.

Regular Temple Lengths (See Material Section.)

Eyewire All Spectacle and Eyeglass Frames are regularly made with oval eyewire unless otherwise described and illustrated.

Angular End Pieces and Angular Shanks on Bridges will be furnished on any spectacle frames or mountings when so ordered. As regularly made, this construction tilts the lenses forward 12 degrees from vertical.

Children's Frames Riding Frames ordered "for children" or any riding frames ordered in 2-eye or 3-eye sizes are regularly furnished with AOCo Assortment of "SS" Bridges for Children and 140 mm. temples. Straight temple frames ordered in these sizes are regularly furnished with AOCo Assortment of "C" Bridges for Children and 133 mm. temples. (See page 37.)

Springs For shapes and lengths of Eyeglass Springs, see Material Section.

Studs "B" Studs are regularly furnished on eyeglass frames and mountings. Angular Studs are regularly made 12 degrees from vertical. (See Material Section.)

Guards Eyeglass frames and mountings are made with cork guards unless otherwise ordered or otherwise described and listed in this catalogue. Offset cork guards are made with riveted arm unless ordered in "one-piece" construction. Offset zylonite guards are made in "one piece" in all regular angles, except those styles otherwise described and listed. Wells offset guards are regularly furnished in C 1 angle. Other angles and styles shown in Material Section are carried in stock.



Central Station Pneumatic Tube System





Main Offices

Handles are furnished on eyeglass frames and grab fronts, as illustrated and described herein. Unless specially ordered eyeglass mountings are furnished without handles. Handle rings are regularly made size "D" for frames and size "B" for mountings. (See Material Section.)

Catch and Pin are supplied on eyeglass frames only when so ordered.

Finger-piece Eyeglasses A special section of this catalogue is devoted to finger-piece eyeglass frames, mountings and fitting sets in all metals.

Repairs Any AOCo goods found to be defective will be repaired free of charge if the defects are due to faulty workmanship or imperfect materials. All other repairs to AOCo goods will be charged for. We accept no risk in repairing goods not manufactured by this Company.

*Do not cut or mutilate this catalogue. When orders are placed direct with us by the wholesaler, or with the wholesaler by the optician, the catalogue number of the article, together with the necessary detail, if any, is all the information required.*

Throughout this catalogue, both frames and mountings are illustrated fitted with lenses, merely for the purpose of conveying a better idea of the completed article.

Lenses are fitted in frames or mountings only when specified or when so ordered, except in goggles which are regularly supplied with lenses.

Prices and other information with reference to American Optical Company's goods will be furnished by the wholesale trade upon application.



## SHIPMENTS

*Our Responsibility* All goods are sold F. O. B. Southbridge, our responsibility ceasing upon delivery to the transportation company in good condition.

*Express or Freight* We ship all goods, except heavy machinery, by express unless otherwise instructed; when freight shipment is desired the order should so stipulate.

*Liability of Express Companies* On express shipments the carrying companies limit their liability to the sum of \$50.00 upon each package. When so instructed we declare the full valuation, in which case the shipment is subject to an advanced rate and the express company assumes full responsibility.

*Goods by Mail* It is our custom to insure all mail packages valued from \$1.00 to \$7.50, by which we accept responsibility for their safe delivery. A small premium is charged on each package for such insurance. Mail packages valued over \$7.50 are sent by registered mail at the risk of the consignee. Mail packages for foreign customers are sent by Parcels Post at the risk of the consignee.

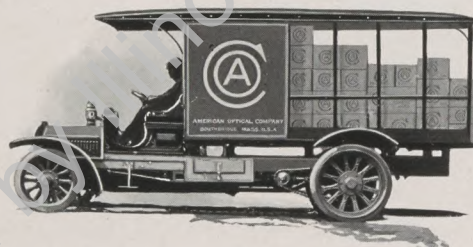
*Partial Shipments* Unless otherwise ordered we forward goods to customers as soon as they accumulate in sufficient quantity, in our judgment, to warrant a shipment. When necessary that an entire order go forward in one shipment, the instructions should be given to "ship complete". Such instructions may, however, cause the delay of a large shipment awaiting a single item.

*Foreign Shipments* Foreign shipments are subject to the same conditions as given above, and are sent via New York City, in care of the forwarding agents selected by the customer, such shipments being sent by express, and not covered by marine insurance unless so ordered, our responsibility ceasing upon delivery to the transportation company in good condition. When no special instructions are given, we choose that which, in our opinion, is the best route.

*Claims for Shortage* We use great care in the selection, checking, packing and re-checking of orders to eliminate the possibility of error. If any discrepancy is discovered, claim should be made immediately. In making such claims, packer's slip should be returned to assist us in our investigation.



A Corner in the Packing Room





## AMERICAN OPTICAL COMPANY STOCK

Realizing that our success is in a large measure contingent upon the efficiency of the service we are able to render to customers, we have always been alert to adopt systems and develop ideas by which this service might be further improved.

The greatest factor in the development of our service has been the establishment of a great stock of AOC<sub>o</sub> goods of those kinds and styles most frequently demanded, or, in short, *regular goods*.

By keeping accurate statistics of sales we are enabled to know the relative demand for every article of AOC<sub>o</sub> manufacture, and are thereby guided intelligently in the addition of new lines of goods to AOC<sub>o</sub> Stock List.

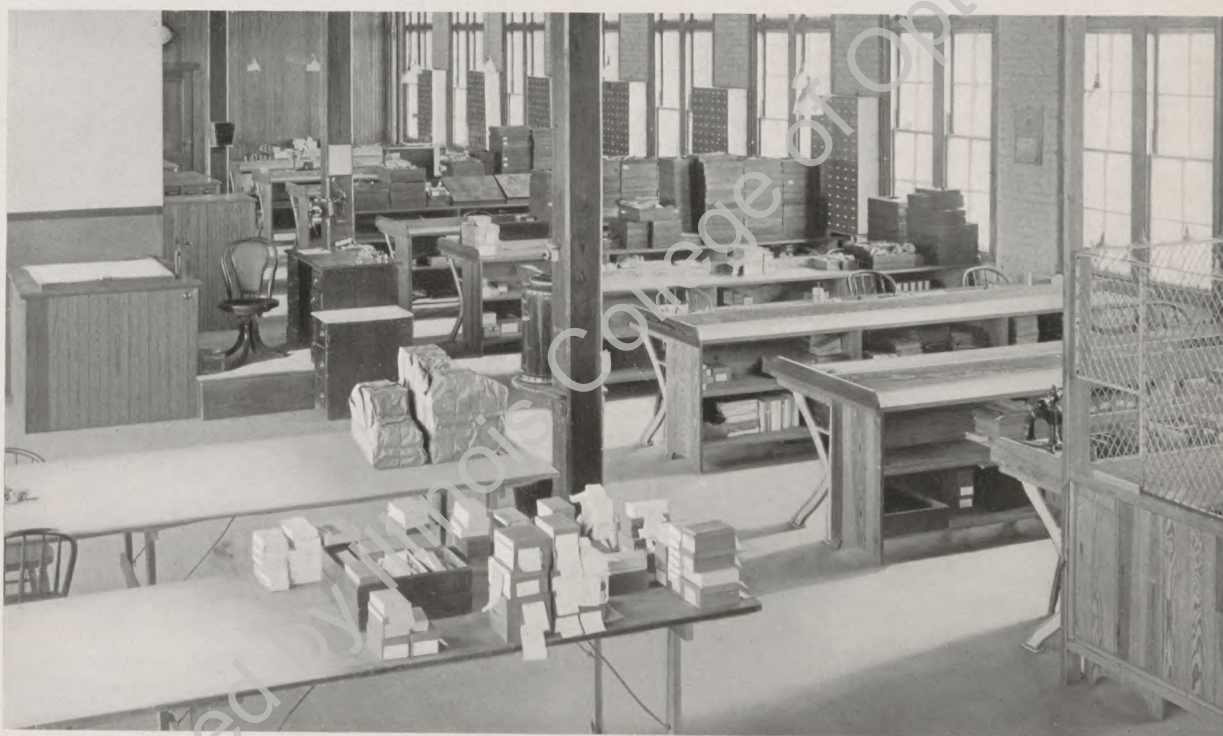
With such a vast stock of goods, held always in readiness subject to the call of customers, one may realize the great advantage of ordering goods of *regular* construction, as a change in the slightest detail naturally necessitates making up the goods from the beginning and a consequent loss of time in the filling of orders.

Lists of AOC<sub>o</sub> stock goods are published at occasional intervals. These lists are printed in convenient pocket form and are of great assistance to anyone who orders optical goods. We will gladly furnish a copy upon request.

The importance of AOC<sub>o</sub> stock as a feature of our service may be estimated from the fact that more than fifty per cent of our orders are now filled from stock.

Invariably many items on an order can be filled immediately from AOC<sub>o</sub> stock, in which case we forward those goods at once, unless the order instructs us to "ship complete". Such instructions necessarily delay the entire order until every item is ready and most of the advantage of carrying goods in stock is lost. It is, therefore, advisable not to request a complete shipment, which allows us to forward all goods that are ready without delay.

It is important to bear in mind that with so many and varied classes of goods we should not be expected to make complete shipments as promptly as though our business was confined to one or two lines.



A Corner in the Inspection Department



## AMERICAN OPTICAL COMPANY TRADE MARKS

To provide a proper means of identification, the Trade Marks shown below are used on goods of our manufacture. On gold frames and mountings the Trade Mark and Quality Mark appear on the under side of bridge or spring, and the Karat Mark inside both temples. Frames and mountings other than gold are stamped with the Trade Mark and Quality Mark on the under side of bridge or spring.

## TRADE MARKS

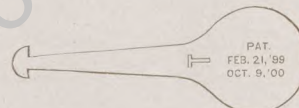
GOLD				OTHER METALS			
Quality			Mark	Quality			Mark
8 K	-	-	AOC <sub>0</sub> +	Steel	-	-	Ⓐ
10 K	-	-	AOC <sub>0</sub> ⊖	Alumnico	-	-	ALUMNICO
14 K	-	-	AOC <sub>0</sub> 14K	Alumnico (Pat. styles)	-	-	ALUMNICO PAT.
				Alumnica	-	-	ALUMNICA
				Regaloid	-	-	REGALOID
				Roman Alloy	-	-	ROMAN ALLOY
GOLD FILLED				MISCELLANEOUS			
1-10 10 K	-	-	Ⓐ [	Trial Sets and Frames	-	-	AOC <sub>0</sub>
1-20 10 K	-	-	Ⓐ ]	Lenses	-	-	AOC <sub>0</sub> <u>CENTEX</u>
1-30 10 K	-	-	Ⓐ ⊔	Spectacle Cases	-	-	Ⓐ
1-10 10 K Bridge and Temple	-	-	Ⓐ ⊗	Machinery	-	-	Ⓐ or AOC <sub>0</sub>
GOLD-FILLED PATENTED STYLES				Ajax Strap	-	-	Ⓐ
1-10 10 K	-	-	Ⓐ ~ [	Imitation Leather	-	-	VICAR
1-10 12 K	-	-	Ⓐ ~ ⊔	Black Enamel Finish	-	-	JAPTOL
1-10 12 K with 1-5 12 K Bridge and Temple	-	-	Ⓐ ~ ⊔	Readers	-	-	AMOPTISCOPE
1-10 14 K	-	-	Ⓐ ~ [	For Tagging Frames, Mountings, etc			
1-8 14 K	-	-	Ⓐ ~ ⊔				
1-10 12 K Bridge and Temple	-	-	Ⓐ ~ ▽				
SILVER							
Coin Silver	-	-	Ⓐ COIN				

## PATENTED LINES

We are now producing over one hundred distinct lines of goods under patents, including eyeglasses, spectacles, springs, guards, studs, lenses, cases, machinery, tools, instruments, in fact, every branch of our product contains examples under this heading. We own and control exclusively many patents and, in addition, manufacture quite extensively under licenses. The completeness of our line, years of extensive experience, and facilities for manufacturing and distributing place us in position to market optical specialties to best advantage, and it is our earnest desire to attract and encourage the best efforts of the inventive world.

Under the supervision of a resident attorney, we maintain the most extensive and complete Patent Department exclusively devoted to optics in the United States. These facilities are at the service of the trade and its inventors, as all ideas submitted are given careful and confidential consideration. Our complete files of classified information enable us to quickly ascertain whether or not an idea is patentable, and if commercially profitable to manufacture. Very often we prepare and prosecute applications for patents for the inventor when he is not able or does not desire to do so himself and wishes to have us make his specialty. We are always pleased to have ideas and patents submitted for consideration with a view to their production.

Without enumerating our patented goods here, attention is invited to those products illustrated throughout the catalogue and designated as "Patented".





## MEASUREMENTS FOR SPECTACLES

Pupillary Distance (P.D.) is the distance between the centers of the pupils. In Fig. I, A to B. The center of eye of a spectacle frame or mounting being difficult to locate, it is customary to measure pupillary distance from the inside of one eyewire or strap to a corresponding point on the other eyewire or strap. In Fig. I, C to D.

Height of Bridge is measured from a line drawn through the horizontal center of the frame (bisecting both temple joints) to the lower edge of crest. In Fig. I, H to G.

Width of Bridge at Base is the distance between the lower points of the bridge at the place where they cease to touch the patient's nose. In Fig. I, E to F.

Inclination of Bridge is the position of crest, forward or back of the plane of lens. A spectacle frame should set the correct distance from the eye, without permitting the lenses to touch the lashes. The plane of lens is the surface nearest the eye and this measurement is taken from the upper edge of crest to the plane of lenses, forward or back. Fig. II illustrates a bridge with its crest 1.5 mm. forward. In Fig. III the crest is on plane (LS), and in Fig. IV it is 1.5 mm. back of plane of lenses (ELS).

Angle of Crest Fig. III illustrates a bridge with the angle of crest at 45 degrees, which is that regularly furnished on all "SS" Bridges made by us.

Length of Temple is measured from the extreme end of butt to end of tip.

Angular End Piece It is often desirable to have the lenses tilted forward, especially for reading and bifocal glasses. The angular End Piece, as regularly made by us, tilts the lenses forward 12 degrees from the vertical.

Metric System of Measurement is becoming universally used for all optical goods. We urge its general adoption by the optical trade as being far more practical than the Inch System, which is almost obsolete.

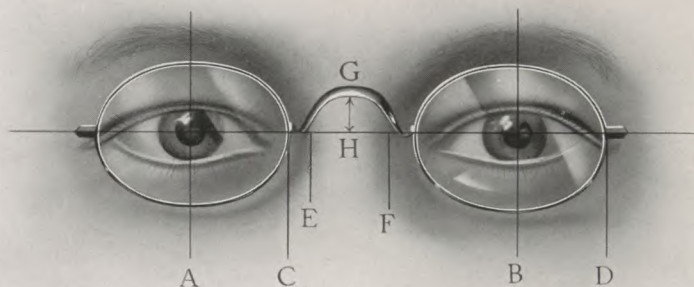


Fig. I

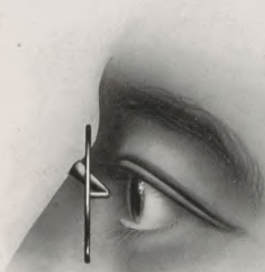


Fig. II

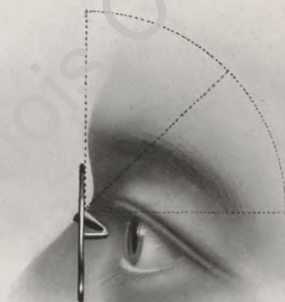
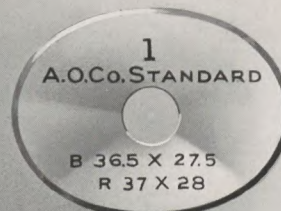


Fig. III



Fig. IV





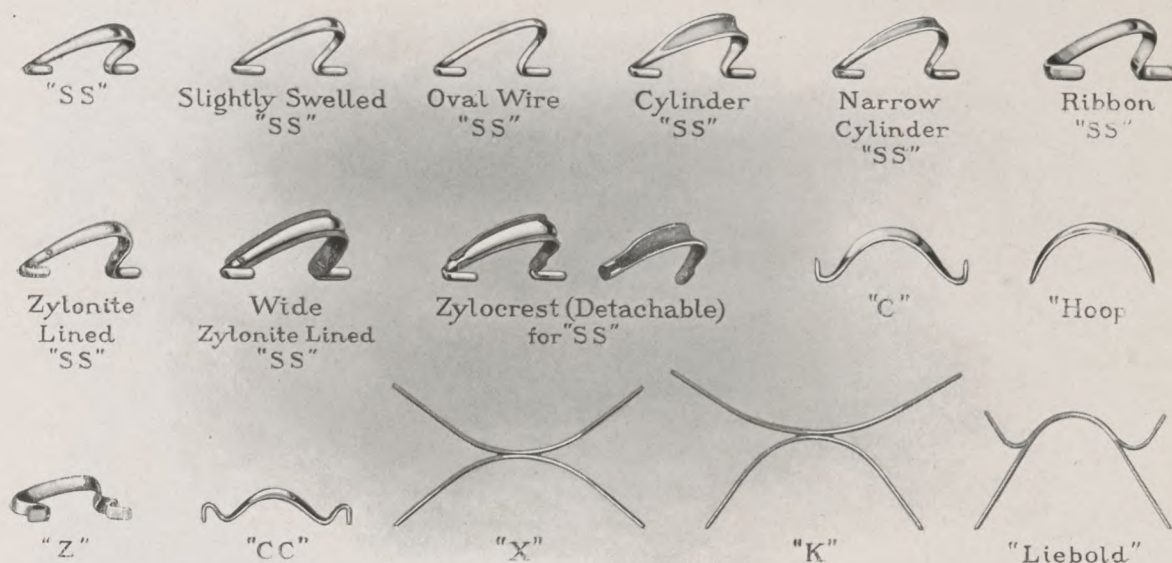
AOCO STANDARD SIZES OF EYES

B Bevel Edge

R Rimless Edge

For special sizes of Lenses and Segments see Lens Section





## STYLES OF SPECTACLE BRIDGES

The Saddle or "SS" Bridge on riding, half-riding and cable temple frames has virtually superseded all other styles and appeals to the oculist and optometrist for the reason that it presents the distinct advantage of a perfect and ready adjustment to almost every case. It rests lightly upon the nose yet furnishes a firm support for the lenses. In England it is frequently termed the "W" Bridge.

A few of the older styles of bridges still have a limited demand and no doubt possess advantages in certain cases. Many of these are shown in the above illustration some of which we mention below:

The Cylinder "SS" Bridge conforms in style to the "SS" Bridge and possesses all of its advantages of adjustment. Its peculiar feature is a grooved or cylindrical shaped crest, preventing contact of upper and lower edge of bridge with the nose and insuring greater comfort to the wearer.

Zylocrest A detachable zylonite lining for "SS" Bridges. No wires or metal clips are necessary. Patented.

The "C" or English "Crank" Bridge is usually preferred for straight temple frames, as it may be worn with comfort in almost any position on the nose.

The "Hoop" Bridge has its use principally on frames having very large or round eyes. It is also employed (when made of round wire) on frames having reversible temples. This form of bridge allows a narrower distance between eyes than any other form, the entire space being taken up by the nose.

The "Liebold", "X" and "K" Bridges provide two points of attachment for each eyewire, making a very rigid front to the Frame. These styles, however, are very expensive to manufacture.

The "Z" Bridge is manufactured especially for the Chinese trade.

Any of the styles illustrated above furnished on any spectacles when so ordered.  
For styles of bridges regularly furnished on frames and mountings, see page 23.



## AMERICAN OPTICAL COMPANY SYSTEM FOR SADDLE ("SS") BRIDGES

The system of spectacle bridges illustrated on pages 32 to 35, inclusive, is generally known as the Saddle System, abbreviated "SS".

The illustrations show, first, the contour of bridges and depth, and width of base for each bridge; second, the side view or profile indicates height of each bridge, and position of crest with reference to plane of lenses.

If size of bridges required is not given in the following illustrations it will be necessary to state all dimensions in ordering or send samples.

In ordering spectacle frames in this system it is necessary to state size of eye and letters denoting bridge measurements. The letters L, M, N, O, P, etc., alone and when combined with height number carry all bridge measurements, including pupillary distance (P. D.) based on an O eye frame as a standard with regular shanks.

### LENGTH OF "SS" BRIDGE SHANKS

Regular Shanks 5 mm. long, Crest of Bridge 1.5 mm. forward of plane of lenses

Long Shanks (LS) 6.5 mm. long, Crest of Bridge on plane of lenses

Extra long Shanks (ELS) 8 mm. long, Crest of Bridge 1.5 mm. back of plane of lenses

### PUPILLARY DISTANCE

When frames other than O eye are wanted the pupillary distance (P. D.) varies from that given in the "SS" tables directly as the size of eye increases or lessens as follows:

#### VARIATION IN P. D. FROM O EYE GIVEN IN "SS" BRIDGE TABLES, PAGES 32 TO 35.

	Bevel Edge	Rimless Edge		Bevel Edge	Rimless Edge
3 eye lessens the P. D.	3.8 mm.		oo eye increases the P. D.	1.9 mm.	1.5 mm.
2 eye lessens the P. D.	2.8 mm.	2.5 mm.	oco eye increases the P. D.	3.2 mm.	2.5 mm.
1 eye lessens the P. D.	1.3 mm.	1.5 mm.	oooo eye increases the P. D.	6.7 mm.	6 mm.
			Jumbo eye increases the P. D.	7.6 mm.	6.9 mm.

It will be noted by reference to the illustration on page 29 that AOC standard sizes of eyes vary according to whether bevel or rimless edge lenses are used. These variations affect the P. D. of frames and mountings correspondingly. The P. D. given for AOC bridge systems is based on O eye bevel edge, the exact eye length being 37.8 mm.

### HEIGHT OF "SS" BRIDGES

Height of "SS" Bridges above center line is denoted by the addition of:

$\frac{1}{2}$ to letter for 2 mm. in height	$\frac{2}{2}$ to letter for 8 mm. in height
1 to letter for 3.5 mm. in height	3 to letter for 9.5 mm. in height
$1\frac{1}{2}$ to letter for 5 mm. in height	$3\frac{1}{2}$ to letter for 11 mm. in height
2 to letter for 6.5 mm. in height	4 to letter for 12.5 mm. in height

## AMERICAN OPTICAL COMPANY SYSTEM FOR "C" AND HOOP BRIDGES

In this system (see page 36) "C" Bridges are indicated by arbitrary numbers C<sub>1</sub> to C<sub>29</sub>. Inclination of "C" Bridges is regularly 1.5 mm. forward of plane; if desired "C" Bridges may be had on plane but it is not practical to make them back of plane.

Hoop Bridges are numbered arbitrarily from H<sub>1</sub> to H<sub>6</sub>.

The P. D. and height of "C" and Hoop Bridges are given in the tables on page 36.

Information on taking measurements for spectacles given on page 28.

For AOC standard sizes of eyes see page 29.



Dimensions			Inclination 1.5 mm. Front of Plane	Inclination On Plane	Inclination 1.5 mm. Back of Plane
P. D.	Height	Base			
55	0	16			
55	2	16			
55	3.5	16			
55	5	16			
55	6.5	16			
58	0	16			
58	2	16			
58	3.5	16			
58	5	16			
60	6.5	16			
60	8	17			
60	9.5	17			
62	0	19			
62	2	19			
62	3.5	19			

American Optical Company System of Saddle ("SS") Bridges

P. D. Based on O Eye. All Dimensions in mm.



Dimensions			Inclination 1.5 mm. Front of Plane		Inclination On Plane		Inclination 1.5 mm. Back of Plane	
P. D.	Height	Base						
62	5	19						
62	6.5	19						
63	8	21						
63	9.5	21						
65	0	22						
65	3.5	22						
65	5	22						
65	6.5	22						
66	9.5	24						
66	12.5	24						
68	0	25						
68	3.5	25						
68	6.5	25						
68	9.5	25						
68	12.5	25						

American Optical Company System of Saddle ("SS") Bridges

P. D. Based on O Eye. All dimensions in mm.



Dimensions			Inclination 1.5 mm. Front of Plane		Inclination On Plane		Inclination 1.5 mm. Back of Plane	
P. D.	Height	Base						
62	0	16						
62	2	16						
62	3.5	16						
62	5	16						
62	6.5	16						
63	8	17						
63	9.5	17						
65	0	19						
65	2	19						
65	3.5	19						
65	5	19						
65	6.5	19						
66	8	21						
66	9.5	21						
68	3.5	22						

American Optical Company System of Saddle ("SS") Bridges

P. D. Based on O Eye. All Dimensions in mm.



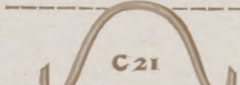




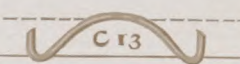


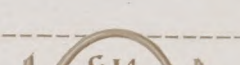
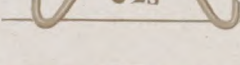


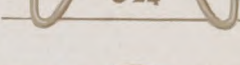

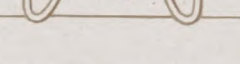
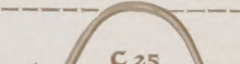


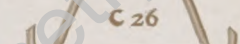
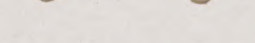


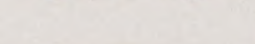


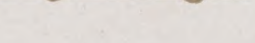


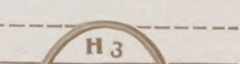
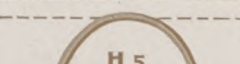


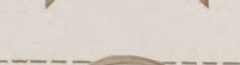


Dimensions			Inclination 1.5 mm. Front of Plane	Inclination On Plane	Inclination 1.5 mm. Back of Plane
P. D.	Height	Base			
58	0	19			
58	2	19			
58	3.5	19			
58	5	19			
58	6.5	19			
60	8	21			
60	9.5	21			
62	0	22			
62	3.5	22			
62	5	22			
62	6.5	22			
63	9.5	24			
65	0	25			
65	3.5	25			
65	6.5	25			
65	9.5	25			

American Optical Company System of Saddle ("SS") Bridges

P. D. Based on O Eye. All dimensions in mm.



Dimensions		"C" Bridges	Dimensions		"C" Bridges	Dimensions		"C" Bridges
P. D. mm.	Height mm.		P. D. mm.	Height mm.		P. D. mm.	Height mm.	
56	3.5		60	8.		64	11.	
56	5.		62	3.5		66	6.5	
58	0		62	5.		66	8.	
58	3.5		62	6.5		66	9.5	
58	5.		62	8.		66	11.	
58	6.5		62	9.5		66	12.5	
60	0		64	5.		68	8.	
60	3.5		64	6.5		68	11.	
60	5.		64	8.		68	14.5	
60	6.5		64	9.5				
Dimensions		"Hoop" Bridges	Dimensions		"Hoop" Bridges	Dimensions		"Hoop" Bridges
P. D. mm.	Height mm.		P. D. mm.	Height mm.		P. D. mm.	Height mm.	
54	3.5		58	5.		60	9.5	
56	6.5		58	8.		62	11.	
American Optical Company System of "C" and "Hoop" Bridges P. D. based on O Eye. "C" Bridges in AOCo assortment shown in outline. All dimensions in mm. Dotted line indicates height. Solid line indicates center								



## AOCO BRIDGE ASSORTMENTS

## AOCO ASSORTMENT OF "SS" BRIDGES

We regularly make all Riding, Half Riding and Cable temple frames and mountings with "SS" Bridges. Unless otherwise ordered they are furnished in AOCO Assortment, which has been adopted after careful study of the requirements of the trade. The assortment furnished in each dozen comprises the following bridges:

Pairs	Size	Pairs	Size	Pairs	Size
1	M 1	2	N 1	1	N 1½ LS
1	M 1 LS	1	N 1 LS	1	N 2
1	M 1½ ELS	1	N 1 ELS	1	N 2½
1	M 2 LS	1	N 1½		

## AOCO "D" ASSORTMENT OF "SS" BRIDGES FOR CHILDREN

On Riding, Half Riding and Cable temple frames 2 and 3 eye size or when the order specifies "for Children", we supply AOCO Assortment of Bridges for Children unless otherwise ordered. The assortment furnished in each dozen comprises the following bridges:

Pairs	Size	Pairs	Size	Pairs	Size
1	L LS	1	M LS	1	M 1½
1	L ELS	1	M ELS	1	M 1½ LS
1	L 1	1	M 1	1	N 1
1	L 1 LS	1	M 1 LS	1	N 1 LS

## AOCO "B" ASSORTMENT OF "SS" BRIDGES

This dozen assortment is regularly supplied on the following frames and mountings having full width oval wire "SS" bridges: Nos. 308, 380, 1006, 1007, 1008, 1106, 1107, 1108, 1196.

Pairs	Size	Pairs	Size	Pairs	Size
4	M 2 LS	4	N 2	4	N 1½

## AOCO ASSORTMENT OF "C" BRIDGES

On straight temple frames we regularly supply "C" Bridges in the following dozen assortment unless otherwise specified:

Pairs	Size	Pairs	Size	Pairs	Size
1	C 6	2	C 15	2	C 20
2	C 10	1	C 16		
2	C 11	2	C 19		

## AOCO "BC" ASSORTMENT OF "C" BRIDGES

The dozen assortment given below is regularly supplied on the following straight temple frames: Nos. 10, 1000, 1001, 1004, 1005, 1100, 1101, 1104, 1105.

Pairs	Size	Pairs	Size	Pairs	Size
4	C 10	4	C 15	4	C 19

## AOCO EUROPEAN BRIDGE ASSORTMENTS

As some of the bridges in AOCO English dozen assortments, regularly furnished on all European orders, are not listed in the saddle "SS" System, we give below the dimensions on each size in mm.

## AOCO "E" ENGLISH ASSORTMENT OF "SS" BRIDGES FOR RIDING TEMPLE

Pairs	P. D. (O Eye)	Height	Inclination	Pairs	P. D. (O Eye)	Height	Inclination
1	58	0	on plane	1	62	3.5	on plane
1	58	3.5	+1.5	1	62	3.5	+1.5
1	60	5	+1.5	1	62	3.5	+3.5
1	60	6.5	+3.5	1	62	5	+3.5
1	62	0	on plane	1	62	6.5	+3.5
1	62	3.5	-1.5	1	65	6.5	+3.5

## AOCO "F" ENGLISH ASSORTMENT OF "SS" BRIDGES FOR STRAIGHT TEMPLE

Pairs	P. D. (O Eye)	Height	Inclination	Pairs	P. D. (O Eye)	Height	Inclination
1	58	5	+1.5	2	62	9.5	+1.5
2	58	6.5	+1.5	3	62	6.5	+3.5
2	62	3.5	+1.5	1	65	9.5	+3.5
				1	65	6.5	+3.5

AOCO English Assortment of "C" Bridges same as regular AOCO Assortment of "C" Bridges, in P. D. and Height.



## AOCO SPECIAL BRIDGE ASSORTMENTS

## AOCO ASSORTMENT OF "X", "K", AND LIEBOLD BRIDGES

Dozen assortment of "X" Bridges, P. D. based on O Eye, no height.

Pairs	P. D. (O Eye)	Pairs	P. D. (O Eye)	Pairs	P. D. (O Eye)
3	60	6	63	3	66

Dozen assortment of "K" Bridges, P. D. based on O Eye.

Pairs	P. D. (O Eye)	Height	Pairs	P. D. (O Eye)	Height	Pairs	P. D. (O Eye)	Height
3	60	3.5	6	63	5	3	66	6.5

Dozen assortment of Liebold Bridges, P. D. based on O Eye.

Pairs	P. D. (O Eye)	Height	Pairs	P. D. (O Eye)	Height	Pairs	P. D. (O Eye)	Height
3	60	3.5	6	63	5	3	66	6.5

## AOCO ASSORTMENT OF GRAB FRONTS AND GRAB BACKS

These assortments are made to fit over the regular AOCO assortments of "SS" and "C" Bridges.

Dozen assortment of "Medio" or Grab Front for "SS" Bridges, P. D. based on O Eye.

Pairs	P. D. (O Eye)	Height	Pairs	P. D. (O Eye)	Height
2	58	5	6	62	6.5
3	60	6.5	1	63	8

Dozen assortment of "Medio" or Grab Front for "C" Bridges, P. D. based on O Eye.

Pairs	P. D. (O Eye)	Height	Pairs	P. D. (O Eye)	Height
2	58	3	4	62	8
4	60	6.5	2	63	8

Dozen assortment of Grab Backs, P. D. based on O Eye (Half-eye sizes have P. D. 1.3 mm. longer).

Pairs	P. D. (O Eye)	Height	Pairs	P. D. (O Eye)	Height
3	58	5	1	62	6.5
1	60	6.5	1	63	8
6	62	5			

## AOCO ASSORTMENT OF FINGER-PIECE EYEGLASS BRIDGES

For equivalent P. D. on other sizes of eyes, see Finger-piece Eyeglass Section. Dozen assortment of Finger-piece Eyeglasses, P. D. based on O Eye. One pair each as follows:

Dimension No.	P. D. (O Eye)	Height	Inclination	Dimension No.	P. D. (O Eye)	Height	Inclination
412	57	2.	3.5	622	60	3.5	3.5
422	57	3.5	3.5	633	60	5.	5.
512	59	2.	3.5	712	62	2.	3.5
522	59	3.5	3.5	722	62	3.5	3.5
533	59	5.	5.	733	62	5.	5.
612	60	2.	3.5	744	62	6.5	6.5

To determine the exact P. D. for any eye from 3 to Jumbo subtract or add variations in table given on page 29.





Weighing Gold Wire to  
be made into Spectacles

assigned him. Conditions such as formerly existed would have rendered our present production a difficult task indeed.

Gold and Silver Comparatively These comparative figures also serve to indicate the increase in the use of gold optical goods over those made from silver; for, while in the year 1877 they were made in almost equal quantities, the demand for gold constantly increased, while the use of silver declined with each succeeding year, until their present production is very limited.

Quality of Stock In the manufacture of gold goods, the quality of stock is primarily of the greatest importance, and demands experience in handling, not only to preserve the wearing qualities, but to maintain a uniform fineness, and it is with pride we refer to the fact that our trade marks are accepted everywhere in America, as a guarantee of the fineness of gold, while many foreign countries require a government stamp to insure the same end.

It is our purpose to guard this mark of confidence by maintaining the highest standard of quality at all times.

Karat of Gold Gold goods are regularly made in 10 and 14 karat, and are stamped as follows: 10 karat, "Θ"; and



Automatic Wire  
Drawing Machine





Blanking Gold Material  
from Flat Stock

14 karat, "14K"; the initials "AOCO" preceding the karat mark when placed in the crest of bridge or under side of springs.

Bridges and Assortment Gold straight temple frames and mountings are made in AOCO assortment with "C" bridges; riding, half-riding and cable temple frames and mountings are made in AOCO assortment with "SS" bridges unless otherwise ordered.

Temples Gold riding frames except cable are regularly supplied with pear tip temples unless otherwise ordered.

Straps Gold frameless mountings are regularly made with rounded (R) straps; they may be had with flat (F) straps if so ordered. Rounded (R) or flat (F) straps are made heavy weight when so ordered.

End Pieces See illustrations for styles of gold end pieces on following pages.

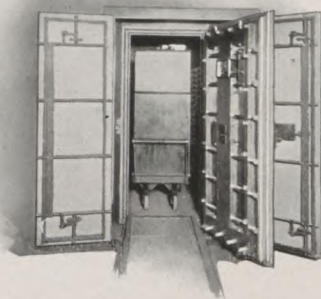
Springs Gold eyeglass frames and mountings are made with regular styles and lengths of springs. (See Material Section.)

Guards Gold eyeglass frames and mountings are made with regular styles of guards. (See Material Section.)

Handles All styles of handles are shown in the Material Section.

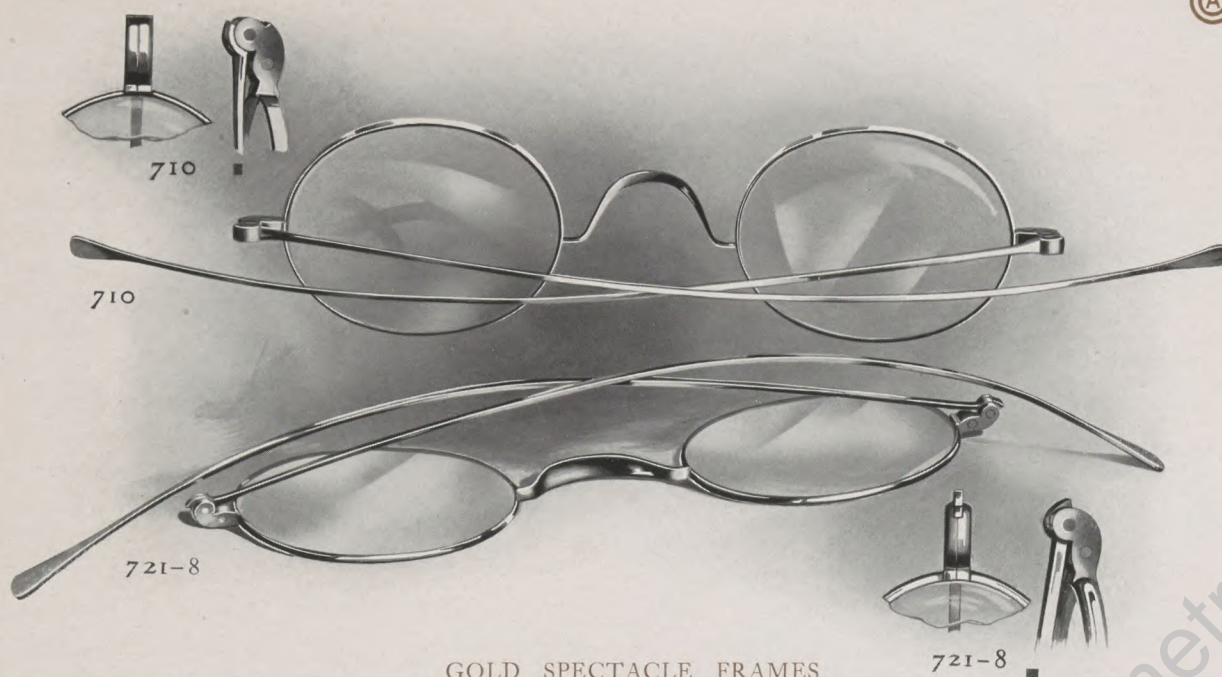
Spectaclettes Gold spectacle frames and mountings are regularly furnished with P. D's. assorted 58, 60 and 63 mm., based on O eye.

AOCO Stock We carry in stock 4000 to 6000 dozen gold frames and mountings of regular styles and weights, from which we are able to fill orders for regular lines promptly. We have devoted much time and careful consideration to the development of our gold department, and congratulate ourselves on a constant improvement in service, which inspires us with a feeling of confidence when soliciting patronage in this important line. A list of goods carried in AOCO stock will be supplied upon application.



Entrance to Vault  
in Gold Department





GOLD SPECTACLE FRAMES

CATALOGUE NUMBER

DESCRIPTION

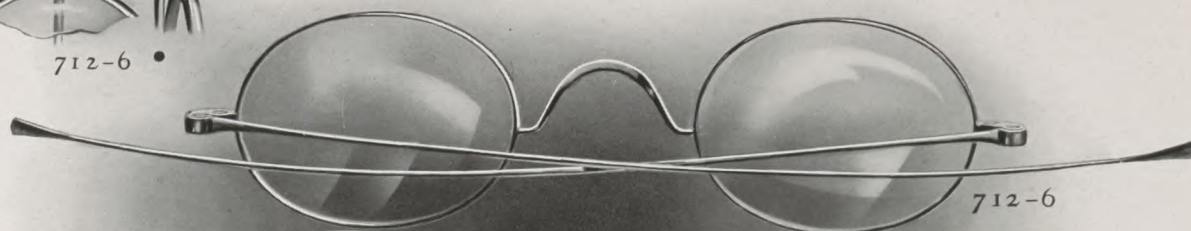
## Straight Temple, Rounded End Piece

Cap Joint						Solid Joint						Flat Eyewire, Flat Temple
700	-	-	-	-	-	700.8	-	-	-	-	-	Light
710	-	-	-	-	-	710.8	-	-	-	-	-	Medium
710 $\frac{1}{4}$	-	-	-	-	-	710 $\frac{1}{4}$ .8	-	-	-	-	-	Heavier
720	-	-	-	-	-	720.8	-	-	-	-	-	Medium heavy
720 $\frac{1}{4}$	-	-	-	-	-	720 $\frac{1}{4}$ .8	-	-	-	-	-	Heavier
730	-	-	-	-	-	730.8	-	-	-	-	-	Heavy
740	-	-	-	-	-	740.8	-	-	-	-	-	Extra heavy
												Oval Eyewire, Flat Temple
701	-	-	-	-	-	701.8	-	-	-	-	-	Light
711	-	-	-	-	-	711.8	-	-	-	-	-	Medium
711 $\frac{1}{4}$	-	-	-	-	-	711 $\frac{1}{4}$ .8	-	-	-	-	-	Heavier
721	-	-	-	-	-	721.8	-	-	-	-	-	Medium heavy
721 $\frac{1}{4}$	-	-	-	-	-	721 $\frac{1}{4}$ .8	-	-	-	-	-	Heavier
731	-	-	-	-	-	731.8	-	-	-	-	-	Heavy
741	-	-	-	-	-	741.8	-	-	-	-	-	Extra heavy
												Oval Eyewire, Round Temple
702	-	-	-	-	-	702.8	-	-	-	-	-	Light
712	-	-	-	-	-	712.8	-	-	-	-	-	Medium
712 $\frac{1}{4}$	-	-	-	-	-	712 $\frac{1}{4}$ .8	-	-	-	-	-	Heavier
722	-	-	-	-	-	722.8	-	-	-	-	-	Medium heavy
722 $\frac{1}{4}$	-	-	-	-	-	722 $\frac{1}{4}$ .8	-	-	-	-	-	Heavier
732	-	-	-	-	-	732.8	-	-	-	-	-	Heavy
742	-	-	-	-	-	742.8	-	-	-	-	-	Extra heavy
												Oval Eyewire, Half-round Temple
703	-	-	-	-	-	703.8	-	-	-	-	-	Light
713	-	-	-	-	-	713.8	-	-	-	-	-	Medium
713 $\frac{1}{4}$	-	-	-	-	-	713 $\frac{1}{4}$ .8	-	-	-	-	-	Heavier
723	-	-	-	-	-	723.8	-	-	-	-	-	Medium heavy
723 $\frac{1}{4}$	-	-	-	-	-	723 $\frac{1}{4}$ .8	-	-	-	-	-	Heavier
733	-	-	-	-	-	733.8	-	-	-	-	-	Heavy
743	-	-	-	-	-	743.8	-	-	-	-	-	Extra heavy

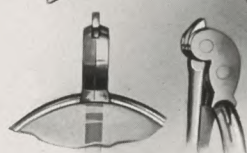




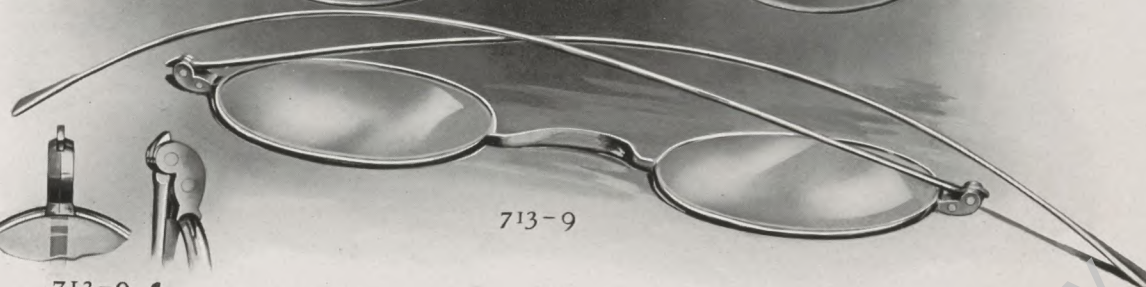
712-6



712-6



713-9



713-9

## GOLD SPECTACLE FRAMES

CATALOGUE NUMBER

DESCRIPTION

## Straight Temple, Beveled End Piece

Cap Joint						Solid Joint						Oval Eyewire, Flat Temple
711.6	-	-	-	-	-	711.9	-	-	-	-	-	Medium
711 1/4.6	-	-	-	-	-	711 1/4.9	-	-	-	-	-	Heavier
721.6	-	-	-	-	-	721.9	-	-	-	-	-	Medium heavy
721 1/4.6	-	-	-	-	-	721 1/4.9	-	-	-	-	-	Heavier
731.6	-	-	-	-	-	731.9	-	-	-	-	-	Heavy
741.6	-	-	-	-	-	741.9	-	-	-	-	-	Extra heavy

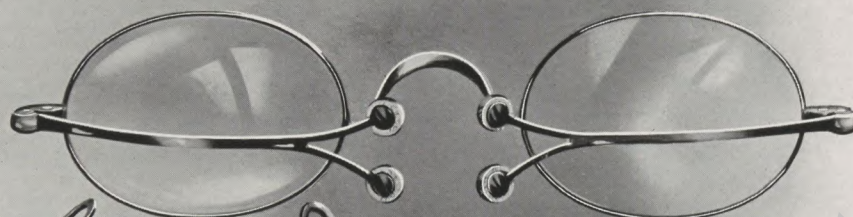
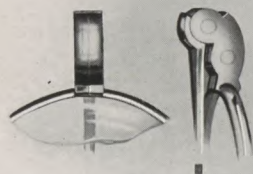
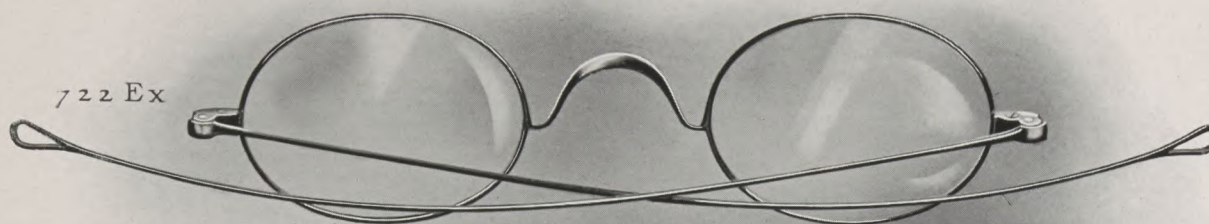
## Oval Eyewire, Round Temple

702.6	-	-	-	-	-	702.9	-	-	-	-	-	Light
712.6	-	-	-	-	-	712.9	-	-	-	-	-	Medium
712 1/4.6	-	-	-	-	-	712 1/4.9	-	-	-	-	-	Heavier
722.6	-	-	-	-	-	722.9	-	-	-	-	-	Medium heavy
722 1/4.6	-	-	-	-	-	722 1/4.9	-	-	-	-	-	Heavier
732.6	-	-	-	-	-	732.9	-	-	-	-	-	Heavy
742.6	-	-	-	-	-	742.9	-	-	-	-	-	Extra heavy

## Oval Eyewire, Half-round Temple

703.6	-	-	-	-	-	703.9	-	-	-	-	-	Light
713.6	-	-	-	-	-	713.9	-	-	-	-	-	Medium
713 1/4.6	-	-	-	-	-	713 1/4.9	-	-	-	-	-	Heavier
723.6	-	-	-	-	-	723.9	-	-	-	-	-	Medium heavy
723 1/4.6	-	-	-	-	-	723 1/4.9	-	-	-	-	-	Heavier
733.6	-	-	-	-	-	733.9	-	-	-	-	-	Heavy
743.6	-	-	-	-	-	743.9	-	-	-	-	-	Extra heavy





721 short PT



721 short OT

## GOLD SPECTACLE FRAMES

CATALOGUE NUMBER

DESCRIPTION

## Straight Temple, Angular Rounded End Piece

Cap Joint					Solid Joint					Shoulder Bridge, Round Open Tip Temples
722 EX	-	-	-	-	722.8 EX	-	-	-	-	Medium heavy
722 1/4 EX	-	-	-	-	722 1/4.8 EX	-	-	-	-	Heavier

## GOLD SHORT TEMPLE SPECTACLE FRAMES

CATALOGUE NUMBER

DESCRIPTION

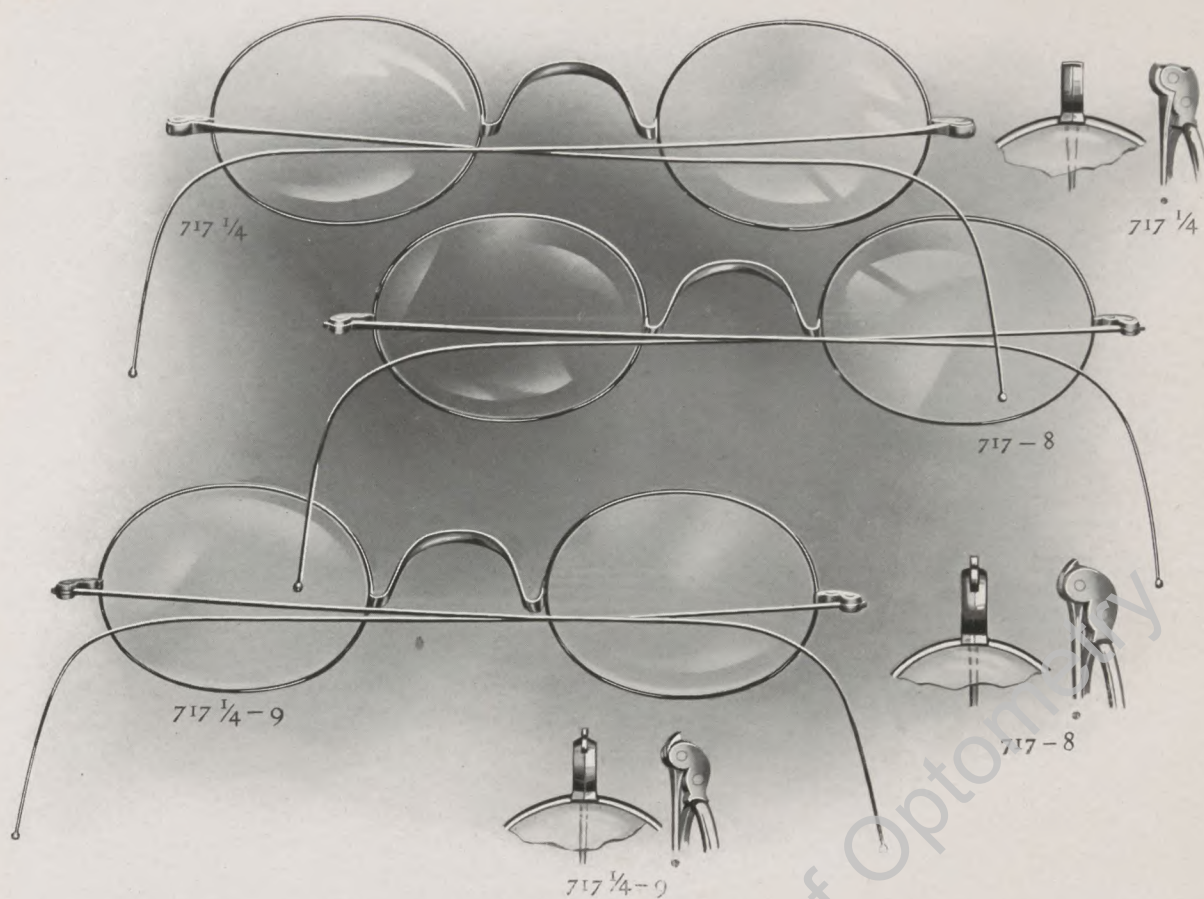
## Short Temple, Rounded End Piece

Padded Tip, Cork Pads					Open Tip					Cap Joint
721 Short P.T.	-	-	-	-	721 Short O.T.	-	-	-	-	Medium heavy
721 1/4 Short P.T.	-	-	-	-	721 1/4 Short O.T.	-	-	-	-	Heavier

Specify "Short Temple" when ordering.

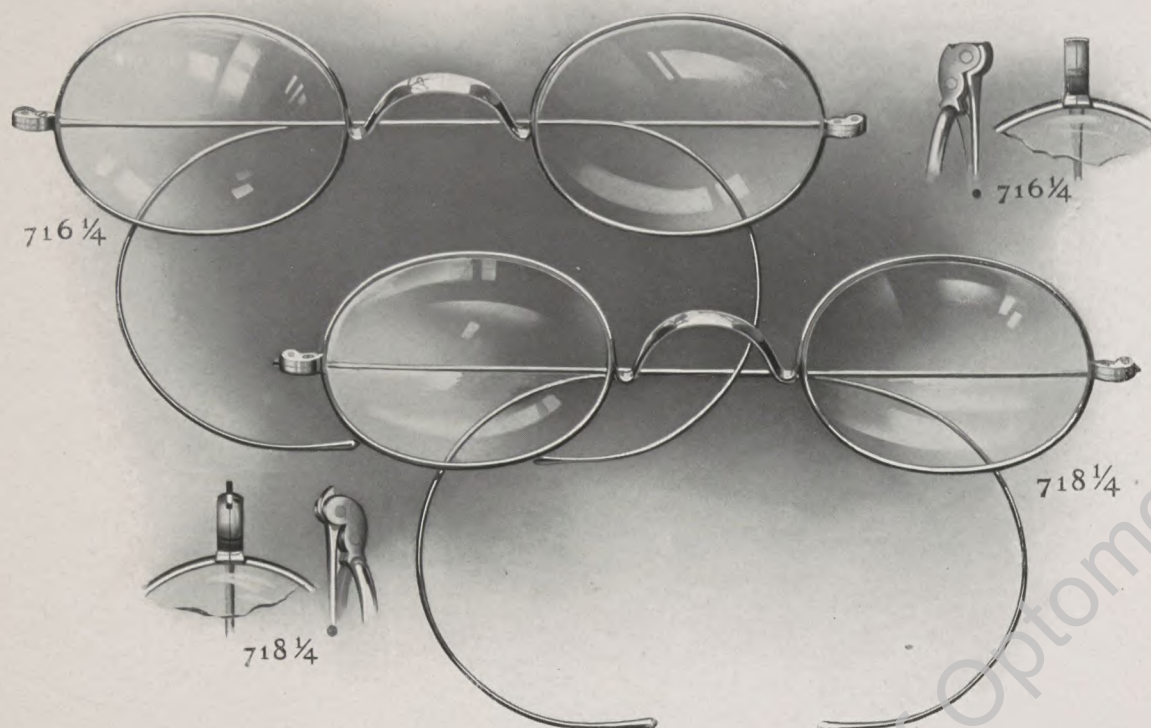
Short Temple Frames made with "C" or "SS" Bridges as ordered.





GOLD SPECTACLE FRAMES





## GOLD SPECTACLE FRAMES

CATALOGUE NUMBER

DESCRIPTION

## Riding Temple, Rounded End Piece

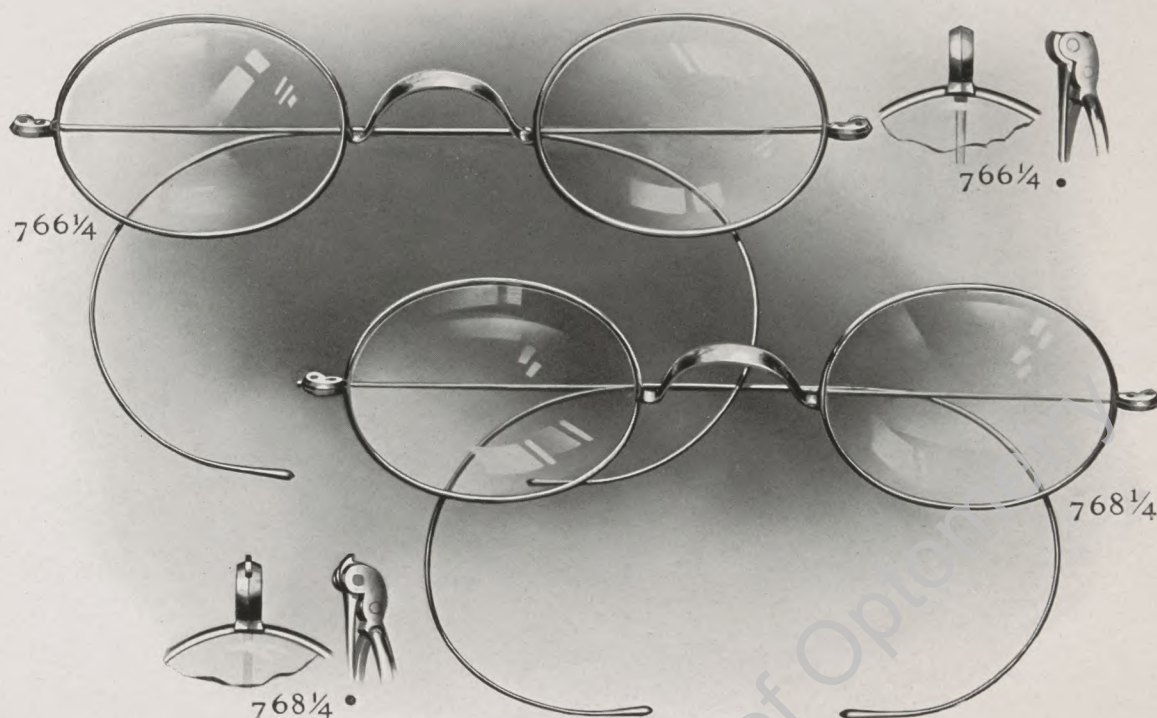
Cap Joint						Solid Joint						
706	-	-	-	-	-	708	-	-	-	-	-	Lightest
706 1/8	-	-	-	-	-	708 1/8	-	-	-	-	-	Heavier bridge
716	-	-	-	-	-	718	-	-	-	-	-	Light
716 1/8	-	-	-	-	-	718 1/8	-	-	-	-	-	Heavier bridge
716 1/4	-	-	-	-	-	718 1/4	-	-	-	-	-	Medium
716 3/8	-	-	-	-	-	718 3/8	-	-	-	-	-	Heavier bridge
716 1/2	-	-	-	-	-	718 1/2	-	-	-	-	-	Medium heavy
716 3/4	-	-	-	-	-	718 3/4	-	-	-	-	-	Heavier bridge
716 7/8	-	-	-	-	-	718 7/8	-	-	-	-	-	Heavy
*726	-	-	-	-	-	*728	-	-	-	-	-	Extra heavy
736	-	-	-	-	-	738	-	-	-	-	-	Heavier

We make a 705 series same as 706 etc., except round eyewire for grooved lenses.

\*Style and weight of old No. 721 Riding.

Above Frames, 716 1/8, 716 3/8 and heavier, supplied with Cable Temples when so ordered. See page 49.





# GOLD SPECTACLE FRAMES

CATALOGUE NUMBER

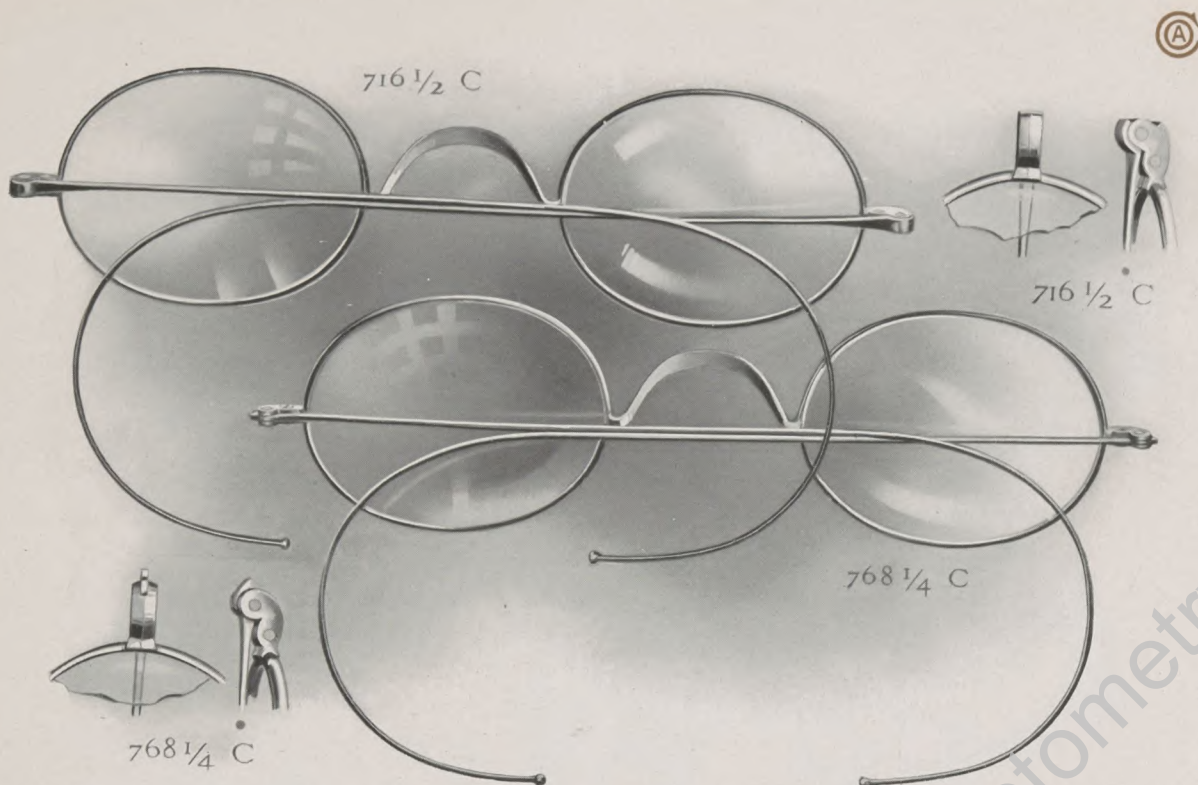
DESCRIPTION

## Riding Temple, Beveled End Piece

Cap Joint	Solid Joint	Extra Finish
766 - - - - -	768 - - - - -	Light
766 1/8 - - - - -	768 1/8 - - - - -	Heavier bridge
766 1/4 - - - - -	768 1/4 - - - - -	Medium
766 3/8 - - - - -	768 3/8 - - - - -	Heavier bridge
766 1/2 - - - - -	768 1/2 - - - - -	Medium heavy
766 5/8 - - - - -	768 5/8 - - - - -	Heavier bridge
766 3/4 - - - - -	768 3/4 - - - - -	Heavy
776 - - - - -	778 - - - - -	Extra heavy
786 - - - - -	788 - - - - -	Heavier

Above frames, 766 1/8, 768 1/8 and heavier, supplied with Cable temples when so ordered. See page 49.





GOLD SPECTACLE FRAMES

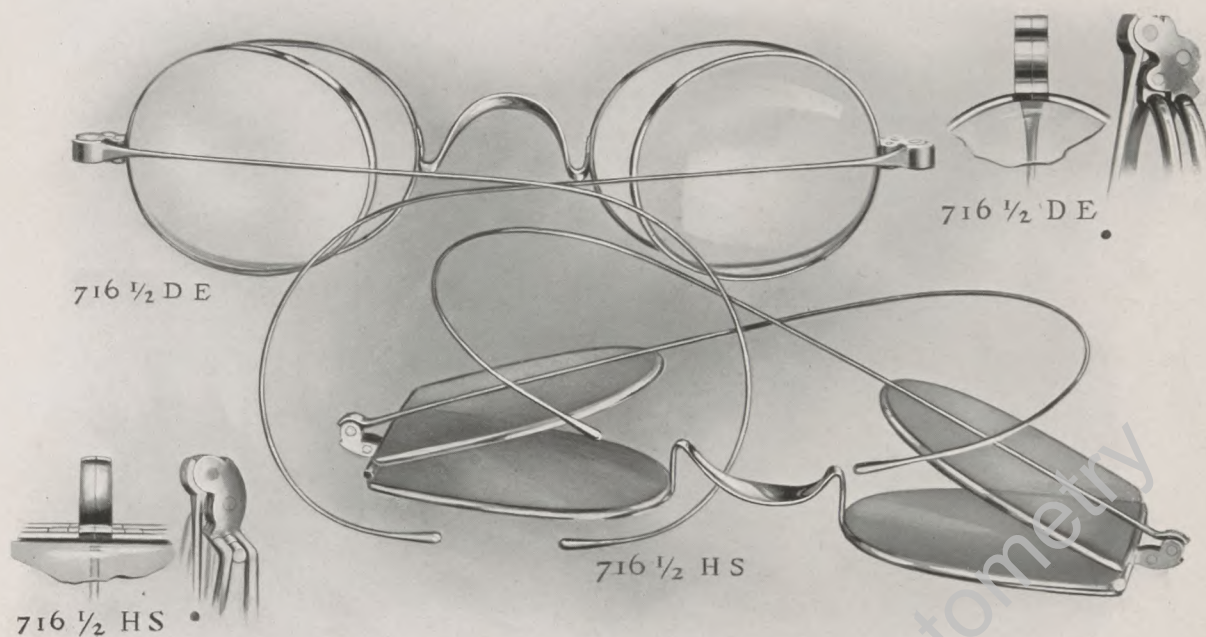
CATALOGUE NUMBER	DESCRIPTION	CATALOGUE NUMBER	DESCRIPTION
Cable Temple, Rounded End Piece			
Cap Joint	Front	Solid Joint	Front
*716 1/8 C	716 1/8	*718 1/8 C	718 1/8
*716 1/4 C	716 1/4	*718 1/4 C	718 1/4
716 3/8 C	716 3/8	718 3/8 C	718 3/8
716 1/2 C	716 1/2	718 1/2 C	718 1/2
716 5/8 C	716 5/8	718 5/8 C	718 5/8
716 3/4 C	716 3/4	718 3/4 C	718 3/4
*726 C	726	*728 C	728
Cable Temple, Beveled End Piece			
766 1/8 C	766 1/8	768 1/8 C	768 1/8
*766 1/4 C	766 1/4	*768 1/4 C	768 1/4
766 3/8 C	766 3/8	768 3/8 C	768 3/8
766 1/2 C	766 1/2	768 1/2 C	768 1/2
766 5/8 C	766 5/8	768 5/8 C	768 5/8
766 3/4 C	766 3/4	768 3/4 C	768 3/4
776 C	776	778 C	778

\*Attention is called to the following changes in numbers for Spectacle Frames listed above:

New Nos. 716 1/8 C, 718 1/8 C Same as old Nos. 716 1/2 Cable, 718 1/2 Cable  
 New Nos. 716 1/4 C, 718 1/4 C Same as old Nos. 726 Cable, 728 Cable  
 New Nos. 726 C, 728 C Same as old Nos. 736 Cable, 738 Cable  
 New Nos. 766 1/4 C, 768 1/4 C Same as old Nos. 766 3/4 Cable, 768 3/4 Cable

NOTE.—When Frames with Half-cable Temples are desired, add letter "H" to above number, thus, 716 1/4 HC.  
 For description of weights 1/8, 1/4, 3/8, etc., see pages 47 and 48.



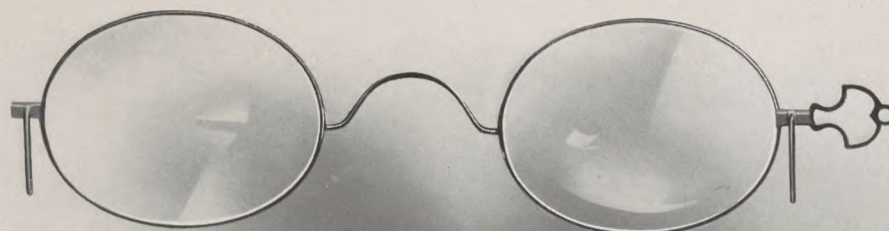


# GOLD SPECTACLE FRAMES—DOUBLE EYE

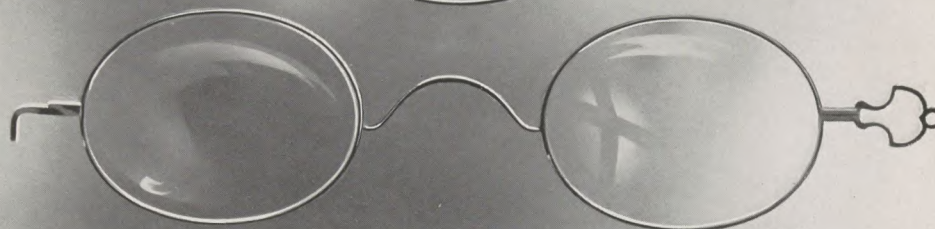
CATALOGUE NUMBER										DESCRIPTION						
Oval Shape																
Riding Temple			Cable Temple			Straight Temple Flat			Rounded End Piece, Cap Joint "SS" Bridge							
716½	D.E.	-	-	-	716½	D.E.C.	-	-	721	D.E.	-	-	-	-	-	Medium heavy
726	D.E.	-	-	-	726	D.E.C.	-	-	-	-	-	-	-	-	-	Heavier
736	D.E.	-	-	-	736	D.E.C.	-	-	-	731	D.E.	-	-	-	-	Extra heavy
* Horseshoe Shape																
716½	H.S.	-	-	-	716½	H.S.C.	-	-	-	721	H.S.	-	-	-	-	Medium heavy
726	H.S.	-	-	-	726	H.S.C.	-	-	-	-	-	-	-	-	-	Heavier
736	H.S.	-	-	-	736	H.S.C.	-	-	-	731	H.S.	-	-	-	-	Extra heavy

\* For sizes of Horseshoe Eyes, see the Introductory Section of this Catalogue.

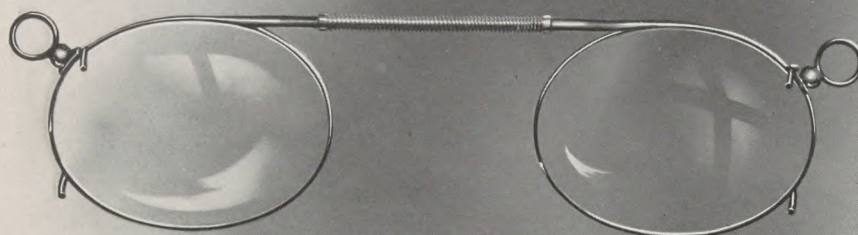




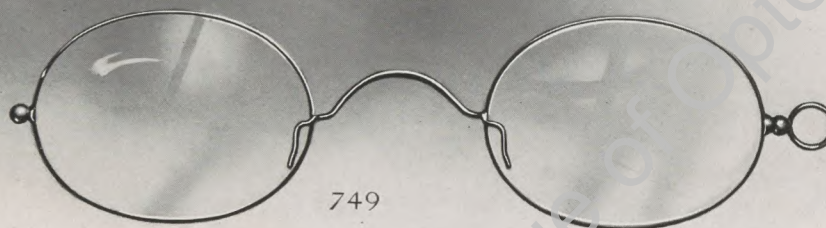
719



729



739



749

GOLD GRAB FRONT FRAMES

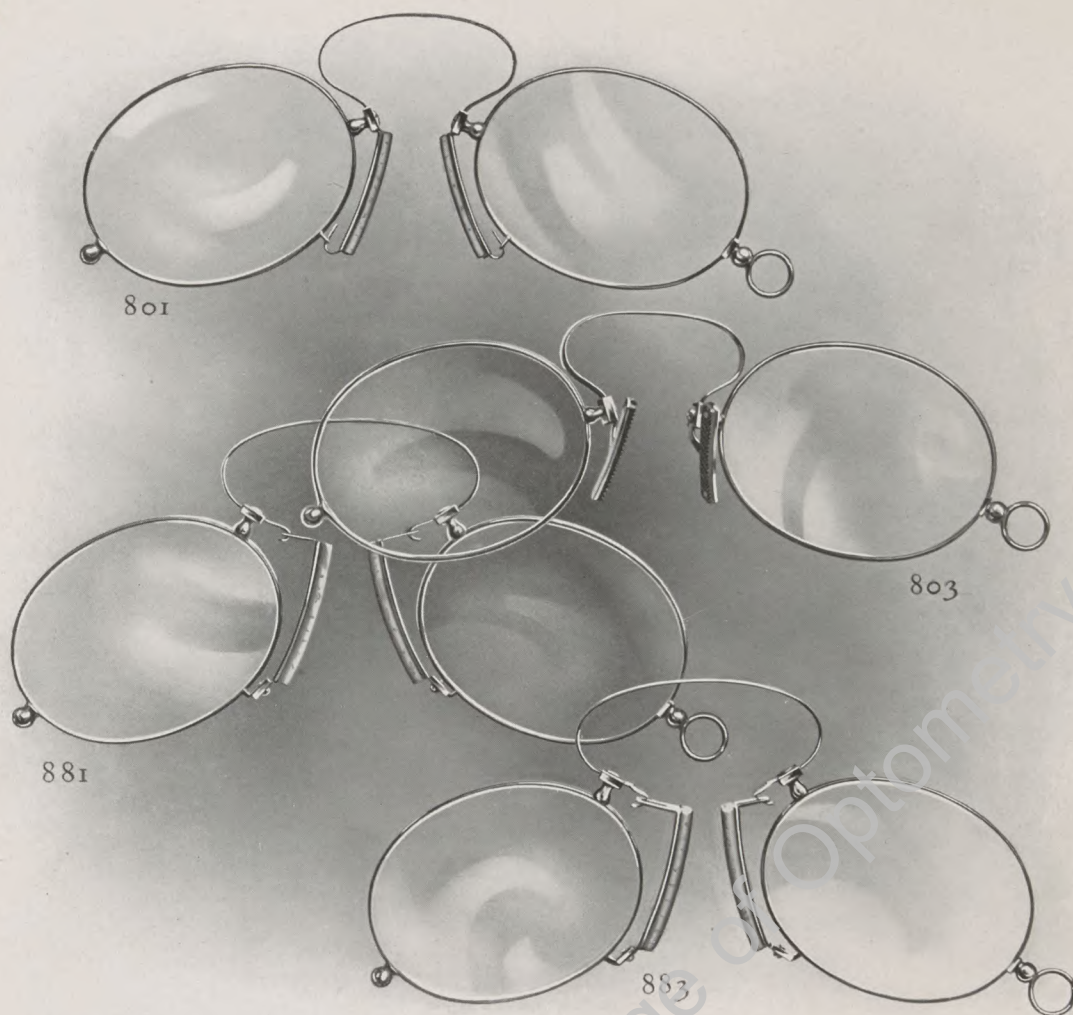
CATALOGUE NUMBER				DESCRIPTION
Oval Wire Bridge	Oval Wire Bridge	Rigid Bar Spring		
719 - -	*729 - -	739 - -	- -	Medium
719 1/8 - -	729 1/8 - -	- -	- -	Heavier bridge
719 1/4 - -	729 1/4 - -	739 1/4 - -	- -	Heavier
719 1/2 - -	729 1/2 - -	739 1/2 - -	- -	Heavy

GOLD MEDIO GRAB FRONT FRAMES. — PATENTED

CATALOGUE NUMBER				DESCRIPTION
For "SS" Bridge		For "C" Bridge		Round Wire Bridge
749 - -	- -	759 - -	- -	Medium
749 1/8 - -	- -	759 1/8 - -	- -	Heavier bridge
749 1/4 - -	- -	759 1/4 - -	- -	Heavier

\* No. 729 style sometimes called Grab Back.





## GOLD EYEGGLASS FRAMES

CATALOGUE NUMBER				DESCRIPTION			
Rigid		Adjustable		Canadian Pattern Adjustable			
901	-	-	981	-	-	-	Light
801	-	-	881	-	-	-	Medium
801 1/4	-	-	881 1/4	-	-	-	Heavy
801 1/2	-	-	881 1/2	-	-	-	Extra heavy
Offset C-1 Angle		Adjustable Offset		Canadian Pattern Adjustable Offset			
903	-	-	983	-	-	-	Light
803	-	-	883	-	-	-	Medium
803 1/8	-	-	883 1/8	-	-	-	Heavier
803 1/4	-	-	883 1/4	-	-	-	Heavy
803 1/2	-	-	883 1/2	-	-	-	Extra heavy

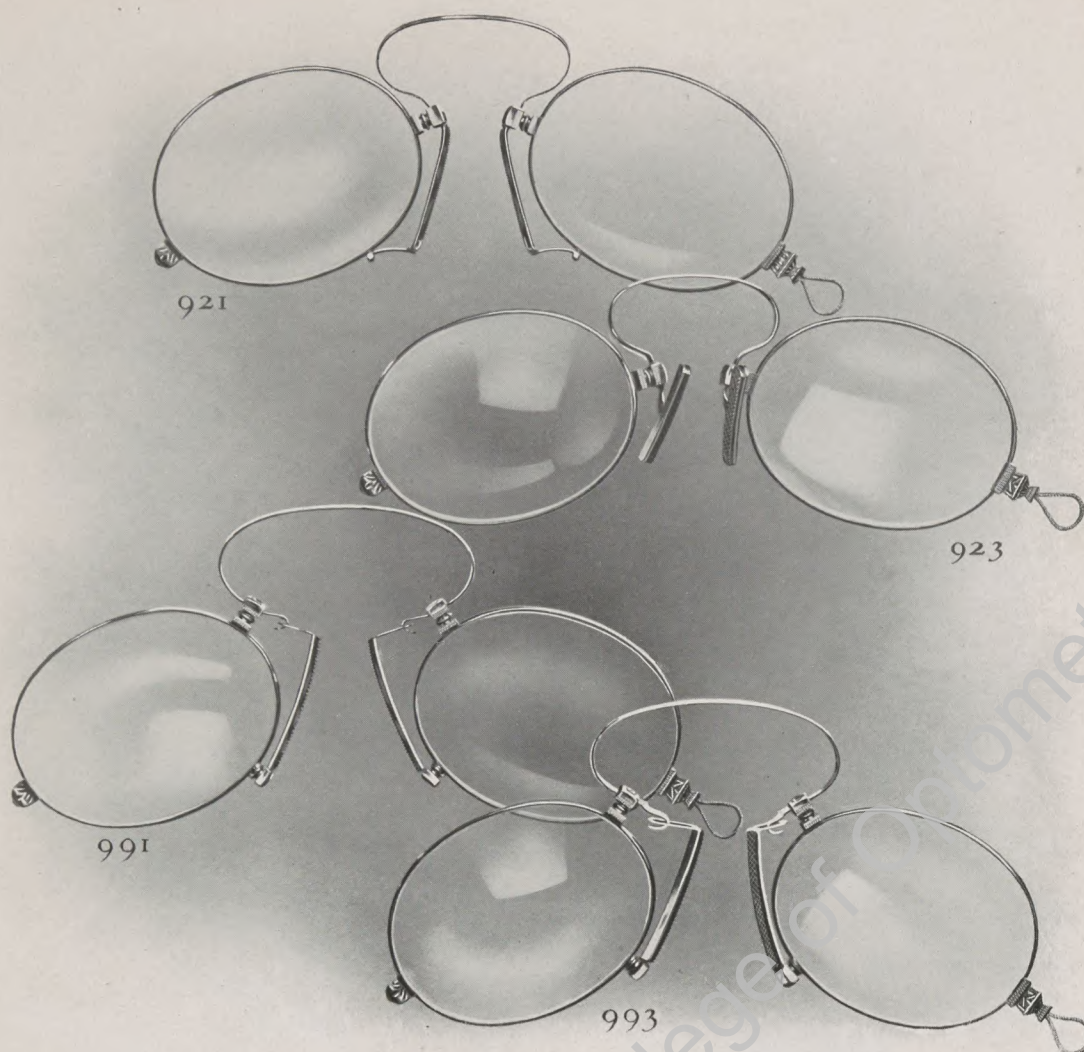
Cork Guards supplied unless otherwise ordered.

Nos. 881, 883, etc., furnished with Solid Adjustable Guards (old No. 861 style) when so ordered. See Guards G-20 and G-21 Material Section.

No. 911 light weight frame, with Solid Zylonite Guards furnished when so ordered. See Guard G-25 Material Section.

Nos. 866 and 867 etc. have bolstered Handles and Rounded Posts. See page 82 for illustrations of Canadian styles.



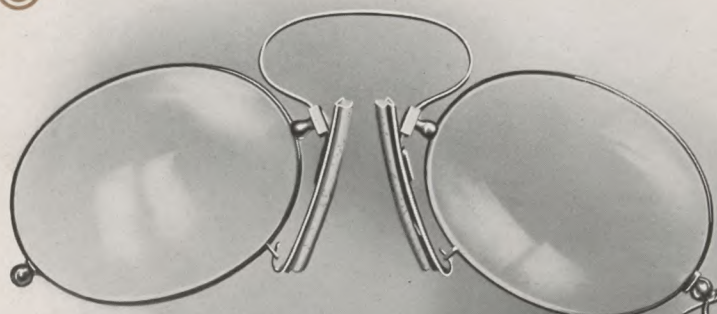


## GOLD EYEGLASS FRAMES

CATALOGUE NUMBER				DESCRIPTION			
Rigid		Adjustable		Extra Finish, Zylonite Guard, Countersunk Stud Screw			
921	-	-	-	991	-	-	Medium
921 $\frac{1}{4}$	-	-	-	991 $\frac{1}{4}$	-	-	Heavy
Offset C-I Angle		Adjustable Offset					
923	-	-	-	993	-	-	Medium
923 $\frac{1}{4}$	-	-	-	993 $\frac{1}{4}$	-	-	Heavy

NOTE.—For styles of Eyeglass Guards other than regular, see Material Section.  
Zylonite Guards supplied unless otherwise ordered.





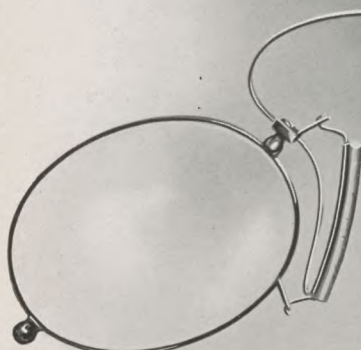
862



999



873



871



998



GOLD EYEGLASS FRAMES

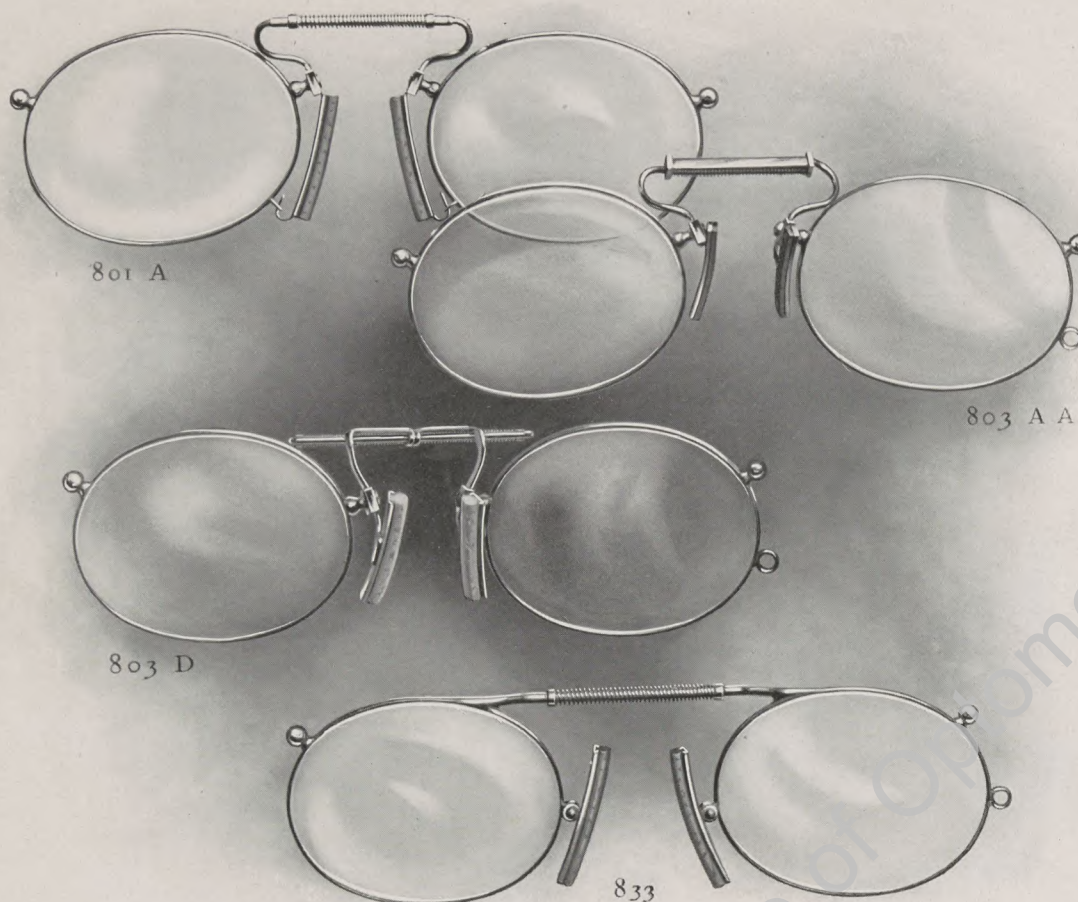
CATALOGUE NUMBER			DESCRIPTION
Long Offset 862	Double adjustable 871	Double Adjustable Offset 873	Medium

Cork Guards supplied unless otherwise ordered.

GOLD OXFORDS OR MONOCLES

CATALOGUE NUMBER	DESCRIPTION
Oxford 998	Gallery Oxford 999 Medium





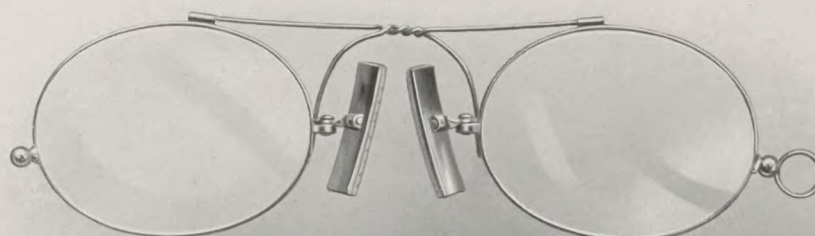
## G O L D   B A R   S P R I N G   E Y E G L A S S   F R A M E S

CATALOGUE NUMBER										DESCRIPTION			
"A"		"AA"		"D"		"F"		Ring for Cord, Medium Weight					
801 A	-	-	801 AA	-	-	801 D	-	-	801 F	-	-	Rigid	
803 A	-	-	803 AA	-	-	803 D	-	-	803 F	-	-	Offset	
"Astig" or Rigid Bar Spring, Oval Eyewire, Rocking Offset Guard													
Round Bar			Oval Bar			Triple Bar							
833	-	-	-	-	835	-	-	-	-	837	-	-	Medium
833 1/4	-	-	-	-	835 1/4	-	-	-	-	837 1/4	-	-	Heavy
833 1/2	-	-	-	-	835 1/2	-	-	-	-	837 1/2	-	-	Extra heavy

Cork Guards supplied unless otherwise ordered.

No. 833 style has Ring for Cord. No. 835 and No. 837 styles have small (19 H) loop Handle.





855 R



857 S



857 R



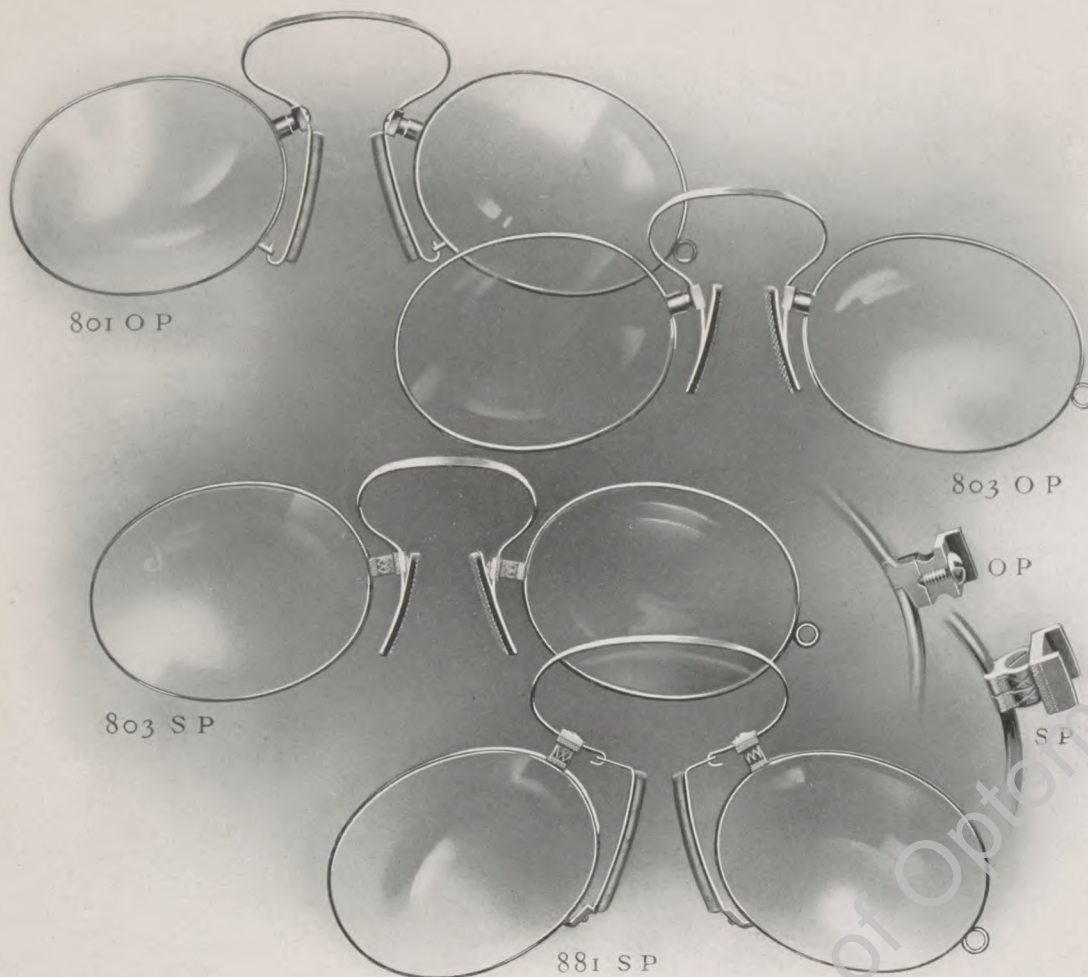
852

# GOLD REVLUC EYEGLASS FRAMES

CATALOGUE NUMBER				DESCRIPTION			
Interchangeable Offset				Rocking			
850	-	-	-	855 R	-	-	-
851	-	-	-	-	-	-	-
852	-	-	-	857 R	-	-	-
				Solid			
				855 S	-	-	-
				857 S	-	-	-
				Medium			
				Medium			
				Medium			

No. 851 has Spring similar to No. 855 without Cross Bar.  
Cork Guards supplied unless otherwise ordered.





## GOLD EYEGLASS FRAMES—OPEN POST

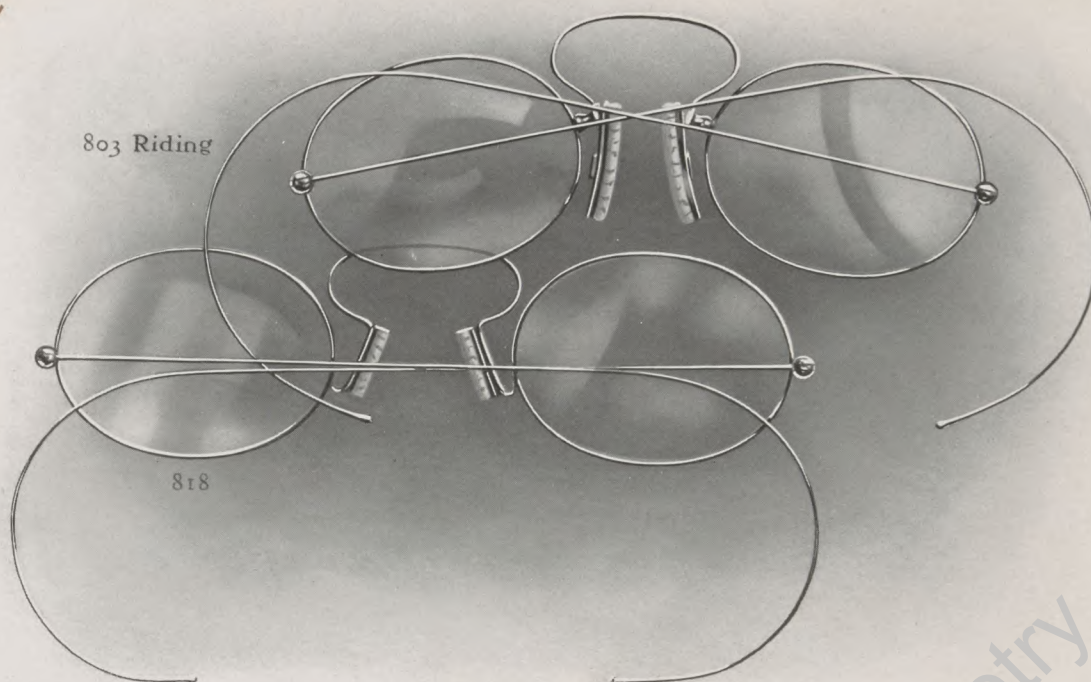
CATALOGUE NUMBER				DESCRIPTION			
Round Post				Square Post			
801 O.P.	-	-	-	801 S.P.	-	-	-
803 O.P.	-	-	-	803 S.P.	-	-	-
881 O.P.	-	-	-	881 S.P.	-	-	-
883 O.P.	-	-	-	883 S.P.	-	-	-
				Ring for Cord			
				Rigid			
				Offset			
				Adjustable			
				Adjustable Offset			

## GOLD EYEGLASS FRAMES—GRAB TEMPLE

CATALOGUE NUMBER				DESCRIPTION			
				Ring Handle, Medium Weight			
801 G.T.	-	-	-	Rigid			
803 G.T.	-	-	-	Offset			
861 G.T.	-	-	-	Solid Adjustable			
881 G.T.	-	-	-	Adjustable			
883 G.T.	-	-	-	Adjustable Offset			

See page 81 for illustrations of Grab Temple Eyeglass Frames.  
 Grab Temples on above Frames are regularly made with Zylonite Pads.  
 Cork Guards supplied unless otherwise ordered.





### GOLD COMBINATION FRAMES

CATALOGUE NUMBER					DESCRIPTION					
Riding Temple			Cable Temple			Invisible End Piece, Solid Joint, Medium Weight				
801	Riding	-	-	801	C Riding	-	-	-	Rigid	
803	Riding	-	-	803	C Riding	-	-	-	Offset	
881	Riding	-	-	881	C Riding	-	-	-	Adjustable	

Temples on above Frames same weight as No. 718, page 47.

### GOLD SPECTACLETTE FRAMES

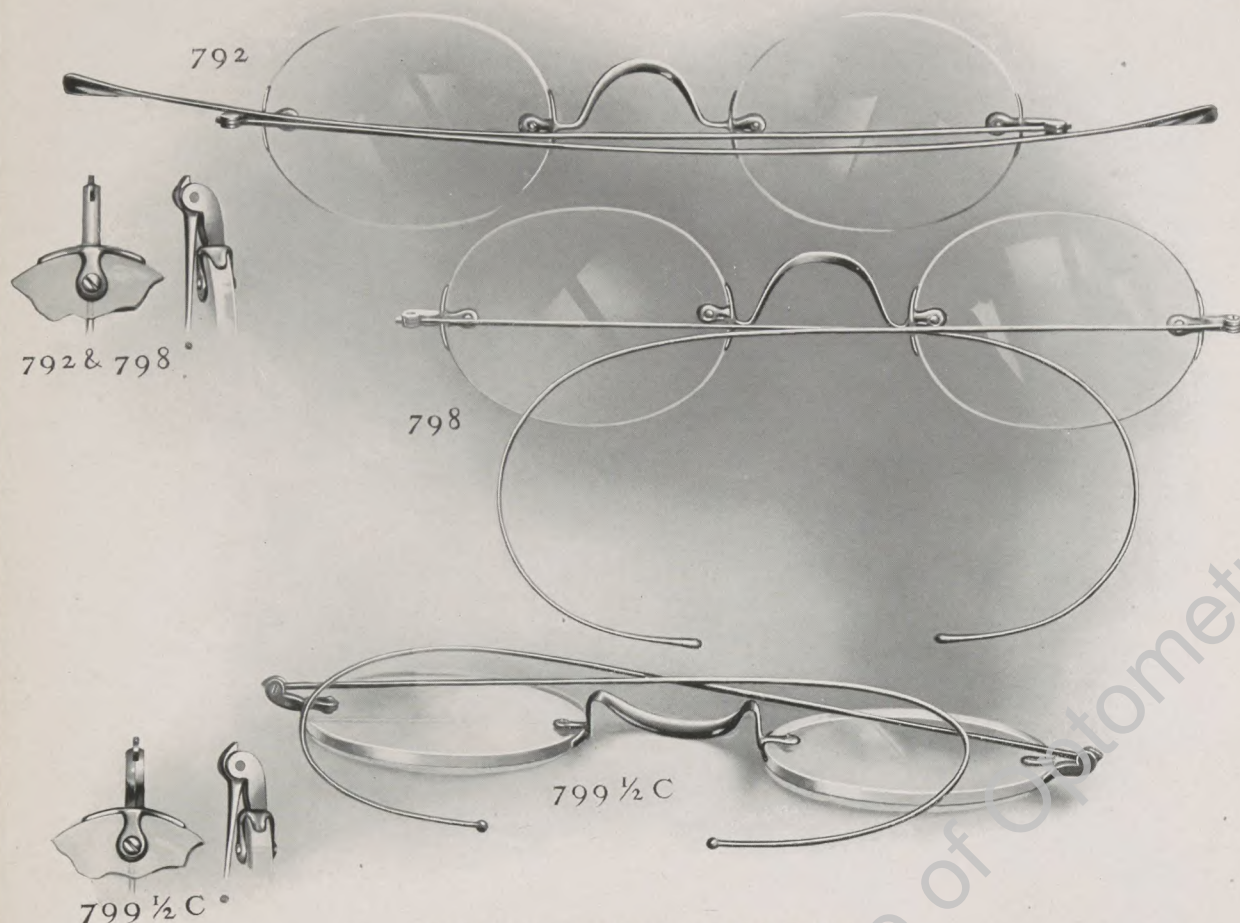
CATALOGUE NUMBER										DESCRIPTION									
Riding Temple					Cable Temple														
818	-	-	-	-	818 C	-	-	-	-	-	-	-	-	-	-	Medium			

### GOLD SPECTACLETTE EYEGLASS FRAMES

CATALOGUE NUMBER													DESCRIPTION
													Without Temples, Medium Weight
834	-	-	-	-	-	-	-	-	-	-	-	-	Spring Guard
839	-	-	-	-	-	-	-	-	-	-	-	-	Adjustable Guard

Cork Guards supplied unless otherwise ordered.  
For style of No. 839, see No. 1739, page 80.



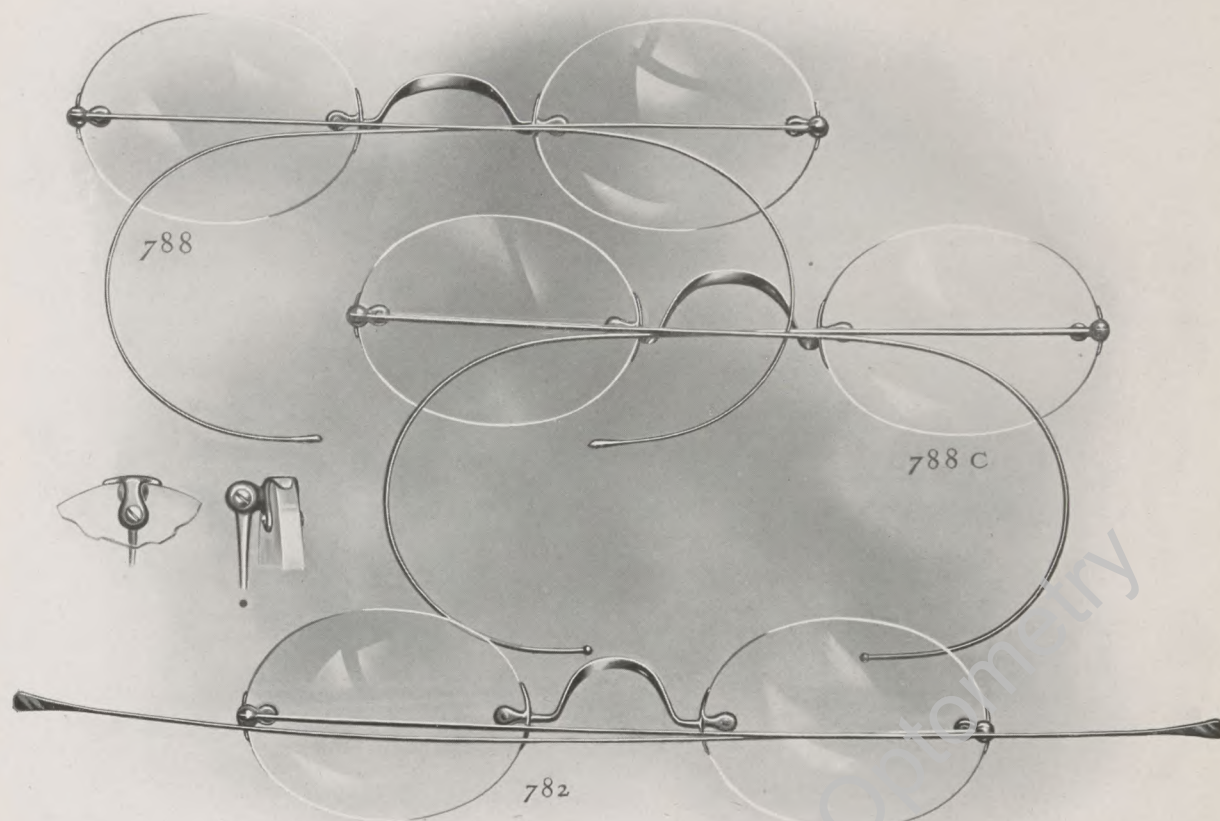


## GOLD SPECTACLE MOUNTINGS

CATALOGUE NUMBER										DESCRIPTION	
Straight Temple, "C" or "SS" Bridge											
Rounded End Piece Solid Joint Round Temple					Rounded End Piece Solid Joint Half-round Temple						
792	-	-	-	-	793	-	-	-	-	-	Light
792 ¼	-	-	-	-	793 ¼	-	-	-	-	-	Heavier
Riding Temple, "SS" Bridge											
Rounded End Piece Solid Joint				Rounded End Piece Cap Joint		Beveled End Piece Solid Joint					
798	-	-	-	798.6	-	799	-	-	-	-	Light
798 ⅛	-	-	-	798 ⅛.6	-	799 ⅛	-	-	-	-	Medium
798 ¼	-	-	-	798 ¼.6	-	799 ¼	-	-	-	-	Heavier
798 ½	-	-	-	798 ½.6	-	799 ½	-	-	-	-	Heavy
798 ¾	-	-	-	798 ¾.6	-	799 ¾	-	-	-	-	Extra heavy bridge
Cable Temple, "SS" Bridge											
Rounded End Piece Solid Joint				Rounded End Piece Cap Joint		Beveled End Piece Solid Joint					
798 ½ C	-	-	-	798 ½.6 C	-	799 ½ C	-	-	-	-	Heavy
798 ¾ C	-	-	-	798 ¾.6 C	-	799 ¾ C	-	-	-	-	Extra heavy bridge

No. 799 1/2 C same as old No. 799 3/4.



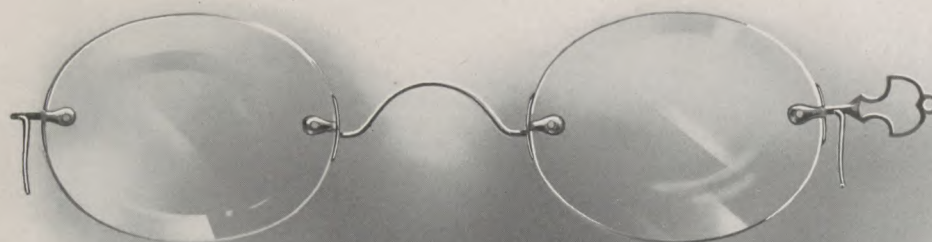


# GOLD SPECTACLE MOUNTINGS

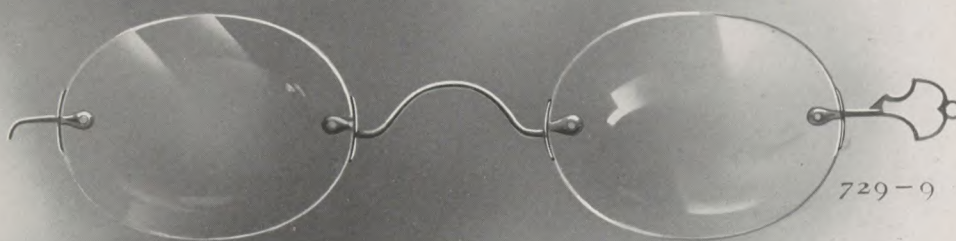
CATALOGUE NUMBER		DESCRIPTION
Patented Invisible End Piece, Solid Joint		
Straight Temple Round		"C" or "SS" Bridge
782	-	
782 1/4	-	Light
Straight Temple Half-round		Heavier
783	-	
783 1/4	-	
Riding Temple		"SS" Bridge
788	-	
788 1/4	-	Light
788 1/2	-	Medium
788 3/4	-	Heavier
788 1/2	-	Heavy
788 3/4	-	Extra heavy bridge
Cable Temple		
788 1/2 C	-	
788 3/4 C	-	

Above Riding Temples are same weight as No. 798; above Cable Temples are same weight as No. 798 1/2 C. See page 59.

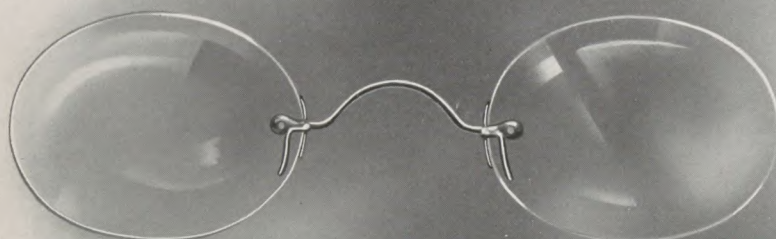




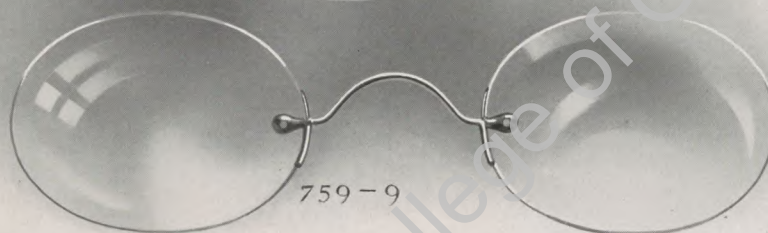
719-9



729-9



749-9



759-9

## GOLD GRAB FRONT MOUNTINGS

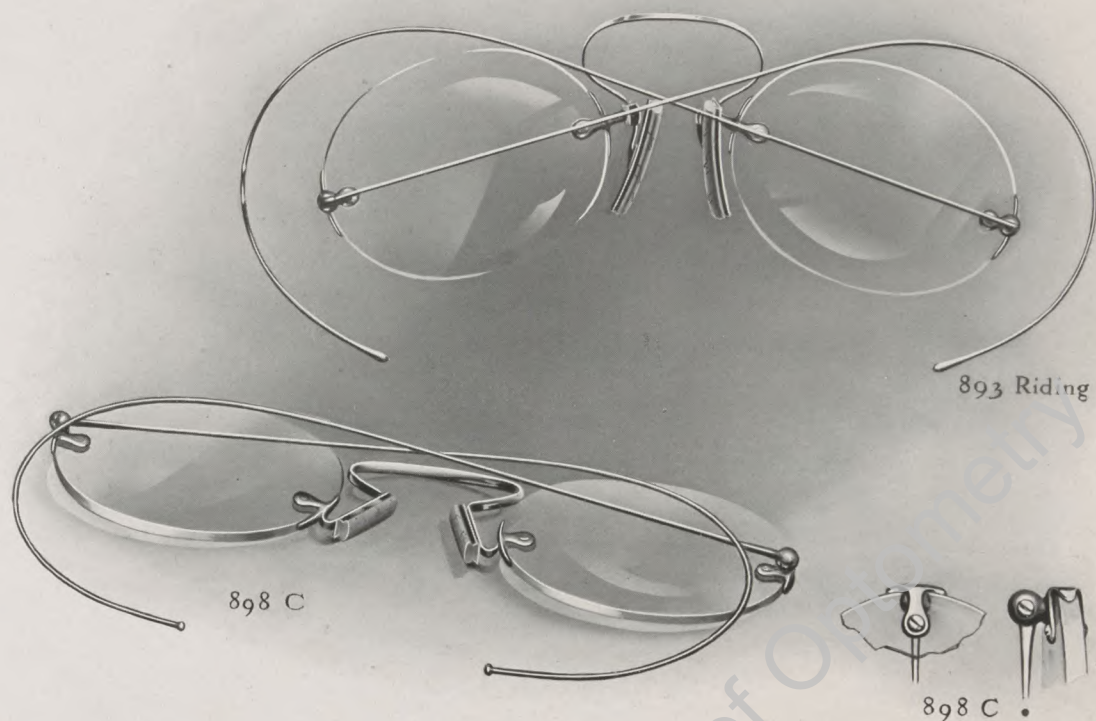
CATALOGUE NUMBER				DESCRIPTION			
719.9	-	-	-	729.9	-	-	Oval Wire Bridge, with Handle and Hooks
719 7/8.9	-	-	-	729 7/8.9	-	-	Medium
							Heavier

## GOLD MEDIO GRAB FRONT MOUNTINGS.—PATENTED

CATALOGUE NUMBER				DESCRIPTION			
For "SS" Bridge				For "C" Bridge			
749.9	-	-	-	759.9	-	-	Round Wire Bridge, no Handle
749 7/8.9	-	-	-	759 7/8.9	-	-	Medium
							Heavier

No. 729.9 style sometimes called Grab Back.



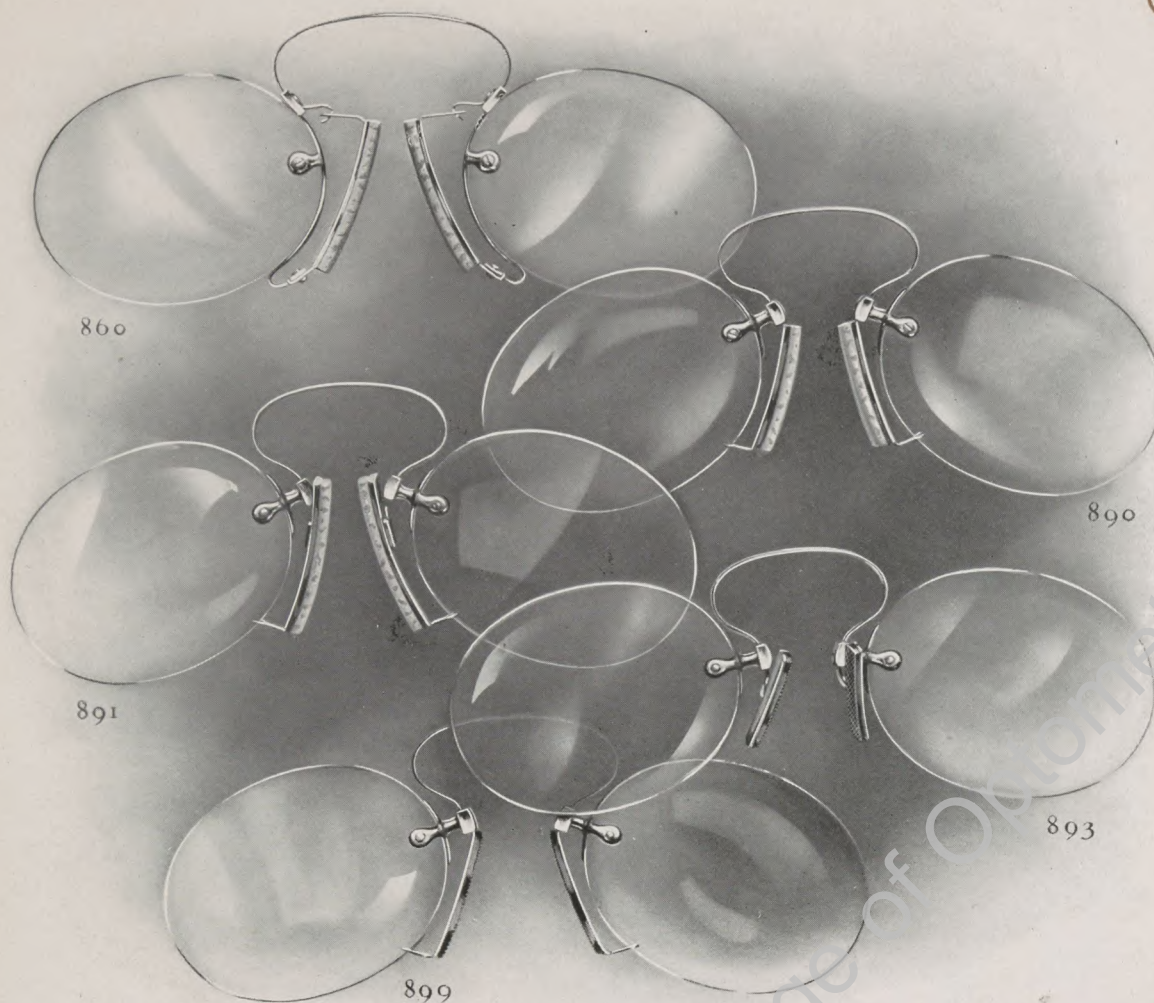


GOLD COMBINATION AND SPECTACLETTE MOUNTINGS

CATALOGUE NUMBER	DESCRIPTION
Riding Temple (No. 798)	
Solid Joint	Patented Invisible End Piece, Medium Weight
893 Riding	Combination, Offset
898	Spectaclette
Cable Temple (No. 798 1/2C)	
893 Riding C	Combination, Offset
898 C	Spectaclette

Cork Guards supplied unless otherwise ordered.





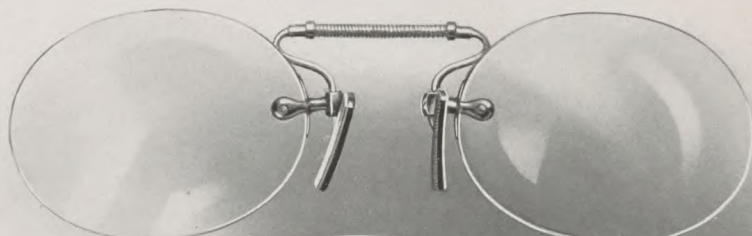
## GOLD EYEGGLASS MOUNTINGS

CATALOGUE NUMBER				DESCRIPTION
Adjustable		Adjustable Offset		
860	-	863	-	Medium
Rigid		Long Offset		
890	-	891	-	Medium
Offset				
993 Rimless	-		-	Very light, sanitary, oval reduced Spring
893	-		-	Medium
894	-		-	Medium, for narrow P. D.
		Extra Finish		
Rigid				
899	-		-	Medium, Zylonite Guard, countersunk Stud Screw

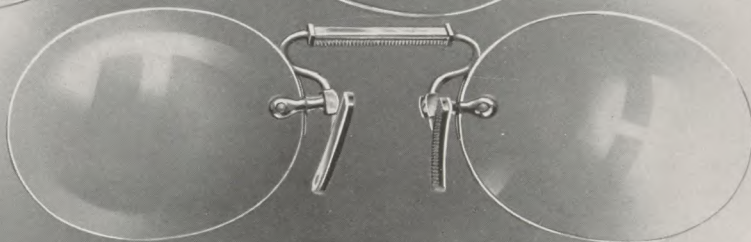
No. 993 Rimless has riveted Guard Spring and Stud.

Cork Guards supplied unless otherwise ordered, except on Nos. 899 and 993.

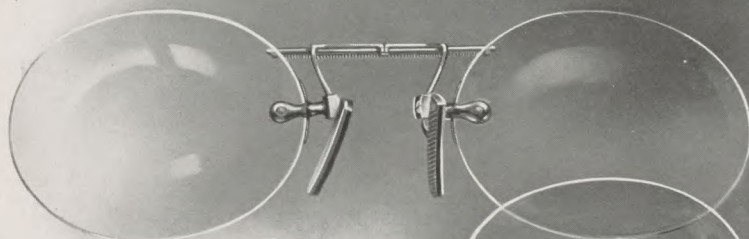




893 A



893 A A



893 D



897

### GOLD BAR SPRING EYEGLASS MOUNTINGS

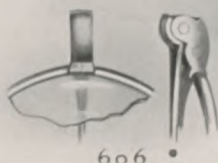
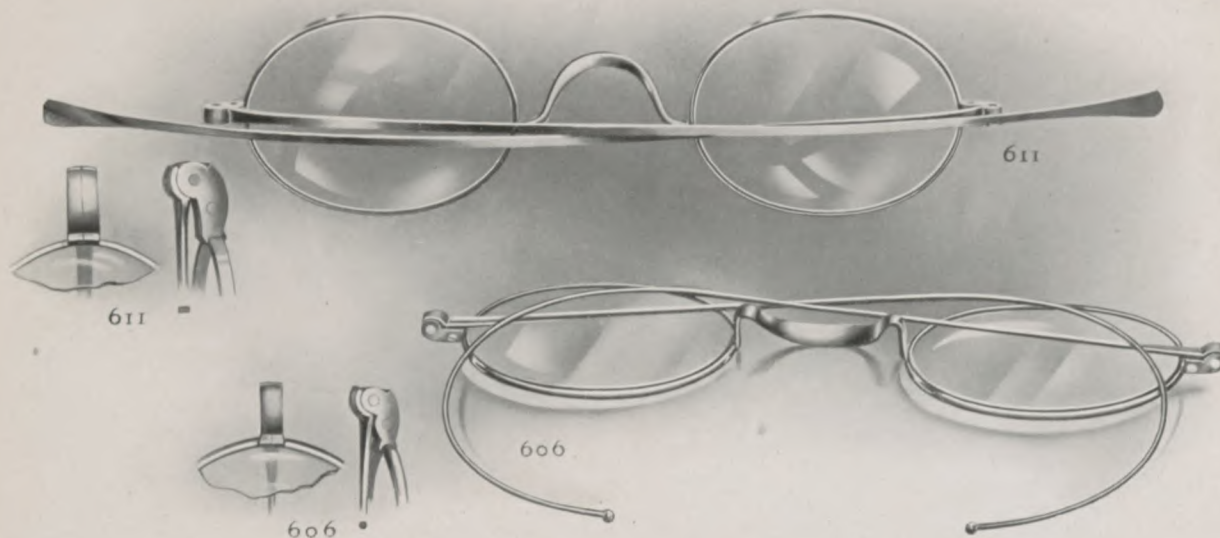
CATALOGUE NUMBER				DESCRIPTION	
"A"	"AA"	"D"	"F"		
890 A	890 AA	890 D	890 F	-	Medium, Rigid Guard
893 A	893 AA	893 D	893 F	-	Medium, Offset Guard

### GOLD REVLUC EYEGLASS MOUNTINGS

CATALOGUE NUMBER				DESCRIPTION	
Interchangeable-Offset	Rocking	Solid			
897	897 R	897 S		-	Medium

Cork Guards supplied unless otherwise ordered.





## SILVER SPECTACLE FRAMES

CATALOGUE NUMBER

### DESCRIPTION

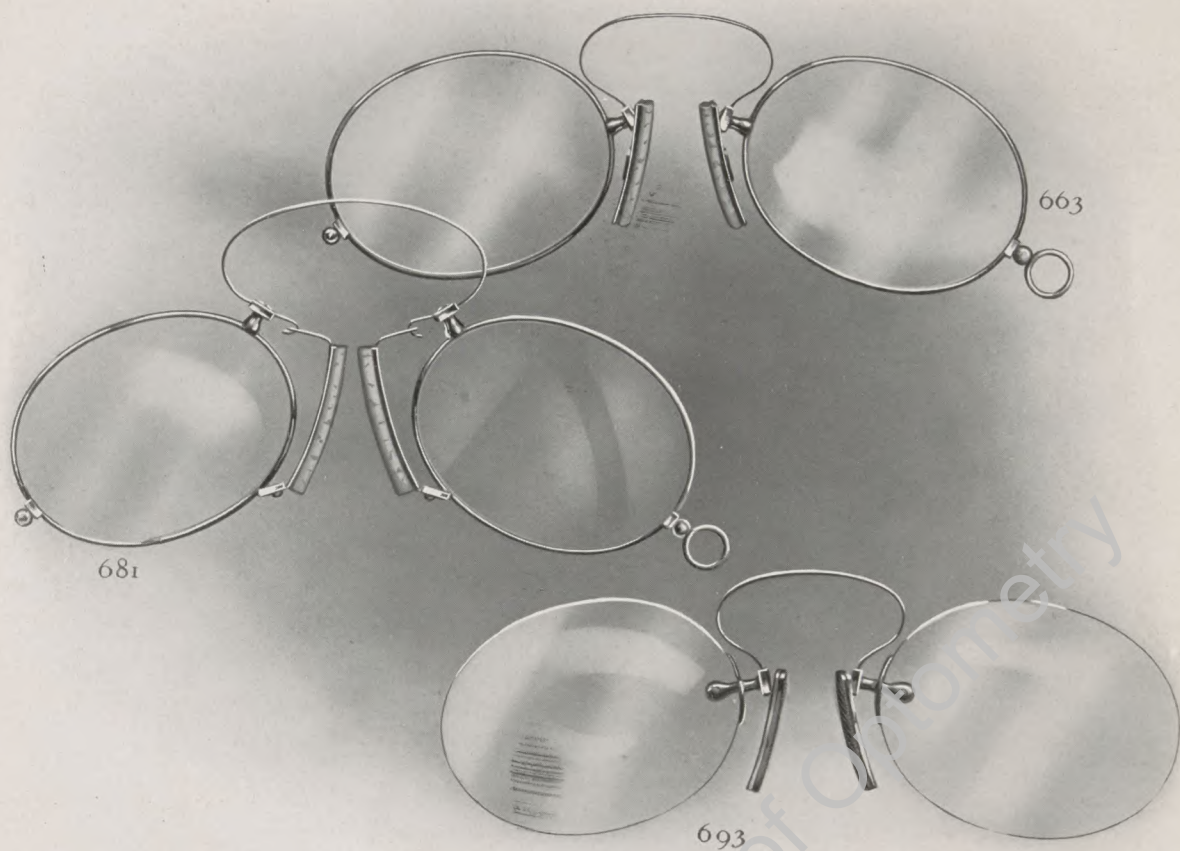
## SILVER SPECTACLE MOUNTINGS

CATALOGUE NUMBER

### DESCRIPTION

698 C	Cable Temple, Rounded End Piece	Medium
-------	---------------------------------	--------





# SILVER EYEGLASS FRAMES

CATALOGUE NUMBER	DESCRIPTION
661	Medium Weight
663	Rigid
681	Offset
683	Adjustable
	Adjustable Offset

# SILVER EYEGLASS MOUNTINGS

CATALOGUE NUMBER	DESCRIPTION
690	Medium Weight
693	Rigid
	Offset

Cork Guards supplied unless otherwise ordered.



Guarantee Tags, Stamping This condition presented a difficulty which guarantee tags, so easily changed, could not overcome, and led to the adoption by us, some years since, of a system of stamping similar to that previously used on solid gold goods of our manufacture, that is, a trade mark denoting quality stamped in the metal itself. The favorable reception which was given to this new departure demonstrated its utility and strengthened our purpose to establish a standard on gold-filled productions, the same as we had already done on gold, where our trade marks are a recognized guarantee of quality wherever AOCo goods are purchased.

Manufacture of Stock To insure this end, and to know that the quality was as indicated, we determined to manufacture the stock itself, for, although we upheld the standard and protected our customers by frequent assays, we had heretofore been compelled to depend upon the integrity and reliability of the wire manufacturer, while, as a producer of the stock itself, we would be in a position to know and certify to its quality by stamping the metal.

Comparison of Stock It is essential, in drawing a comparison of style, finish and durability between two makes of gold-filled frames, that the same grade of stock be selected in both cases, as it is manifestly unfair to compare the  $\frac{1}{10}$  quality of one maker with the  $\frac{1}{10}$  grade of another. While it is our province, as manufacturers, to supply the demand for the lower grades of gold-filled stock, we cannot too strongly recommend the better ones, as we believe the dealer who handles the better qualities in gold-filled goods, will, in the end, attain the greater measure of success.

Patented Styles Certain methods of construction and machinery used in the manufacture of gold-filled frames have been developed, or acquired by the American Optical Company and protected by letters patent. These improvements are embodied particularly in what we term our Patented Styles, which will be found listed on pages 74, 75 and 87. These goods have a characteristic stiffness, color and design which make



Truing Spectacle Frames



A Corner of Polishing Room



them especially desirable for use by the better class of trade. The Patented Styles are distinguished by the 1600 series of catalogue numbers. We recommend these goods as representing the highest type of development in the manufacture of gold-filled spectacle frames and mountings. The Patented Styles are not made in any quality below  $\frac{1}{10}$  10 karat. Every frame and mounting is marked in the bridge in accordance with the registered trade marks as explained on the following page.

Gold Bridges Any style of gold-filled spectacle frames or mountings made with solid gold bridge when desired. In ordering, specify the number denoting style, weight and karat sign indicating quality, thus, 1638  $\square$  1 eye with 716  $\frac{1}{4}$  10 karat bridge.

Gold Temples may be had on any gold-filled spectacle frames and mountings having solid joints. Specify karat and style number, to indicate quality and weight.

Pear Tip Temples Special attention is directed to the improved AOC<sub>o</sub> pear tip construction for riding temples. By the employment of special patented machinery we are able to cover the entire tip with an even gold coating, doing away with the usual soldering process, thus retaining the temper and wear-resisting properties with no tendency to corrode or discolor. Regularly furnished on Patented Style frames and mountings of  $\frac{1}{10}$  12 karat quality, or better.

Plated End Pieces may be had on  $\odot \sqcup$  and  $\odot \sqcap$  quality gold-filled spectacle frames and mountings. Add the letter "P" to catalogue number when ordering, thus, 1558 P  $\sqcup$ .



Shaping and Sizing  
Spectacle Eyes

Gold End Pieces, as regularly furnished, are 8 karat, and may be had on any style gold-filled spectacle frames or mountings. Add the letter "G" to the catalogue number when ordering, thus, 1638 G. Ten karat end pieces are furnished when ordered.

Solderless Cable Temples (pat.)

This construction has gained great favor, as it overcomes the objections to the soldered form of cable temple construction. It is usually supplied with flat butt, see Material Section, a desirable feature in cable temples. Can be supplied in any quality.



Special Temples Whenever half-cable temples are desired add "H" to cable temple number, thus, 1699 HC.

Whenever comfort cable temples are desired add "C" to cable temple number, thus, 1628 CC. See page 75. For other special temples, see Material Section.

Material All styles in temples, guards, springs, studs, etc., are listed in detail in the Material Section of this Catalogue. For various forms and assortments of bridges and standard sizes of eyes, see Introductory Section.

In ordering it is necessary to follow the catalogue number denoting the style, with the quality mark indicating the grade of stock, thus, 1638  $\text{\textcircled{E}}$ , meaning 1638 style,  $\frac{1}{10}$  12 karat gold-filled stock.

AOC Co Registered Trade Marks for Gold-filled Goods Gold-filled goods, as regularly made by us, are stamped under the spring or crest of bridge, with the following registered trade marks:

#### REGULAR STYLES

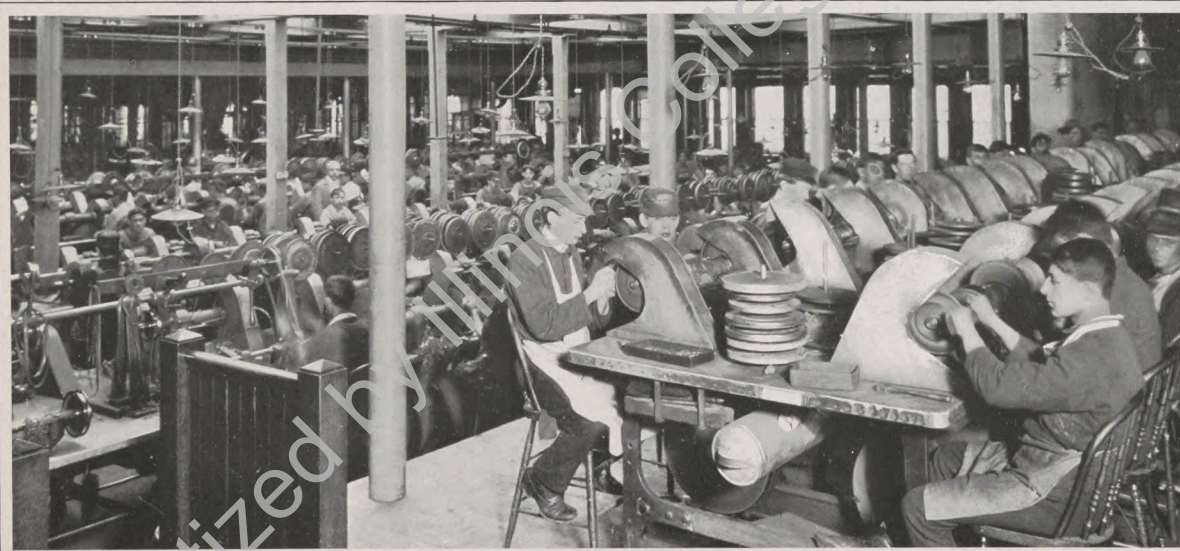
$\frac{1}{10}$ 10 karat $\text{\textcircled{C}}$ $\square$	10 karat gold-filled with
$\frac{1}{20}$ 10 karat $\text{\textcircled{C}}$ $\square$	$\frac{1}{10}$ 10 karat Bridge
$\frac{1}{30}$ 10 karat $\text{\textcircled{C}}$ $\square$	and Temple $\text{\textcircled{C}}$ $\times$

#### PATENTED STYLES

$\frac{1}{10}$ 10 karat $\text{\textcircled{C}}$ $\sim$ $\square$	$\frac{1}{8}$ 14 karat $\text{\textcircled{C}}$ $\sim$ $\square$
$\frac{1}{10}$ 12 karat $\text{\textcircled{C}}$ $\sim$ $\square$	$\frac{1}{10}$ 14 karat $\text{\textcircled{C}}$ $\sim$ $\square$
$\frac{1}{10}$ 12 karat gold-filled with $\frac{1}{8}$ 12 karat Bridge and Temple $\text{\textcircled{C}}$ $\sim$ $\square$	
12 karat gold-filled with $\frac{1}{10}$ 12 karat Bridge and Temple $\text{\textcircled{C}}$ $\sim$ $\nabla$	

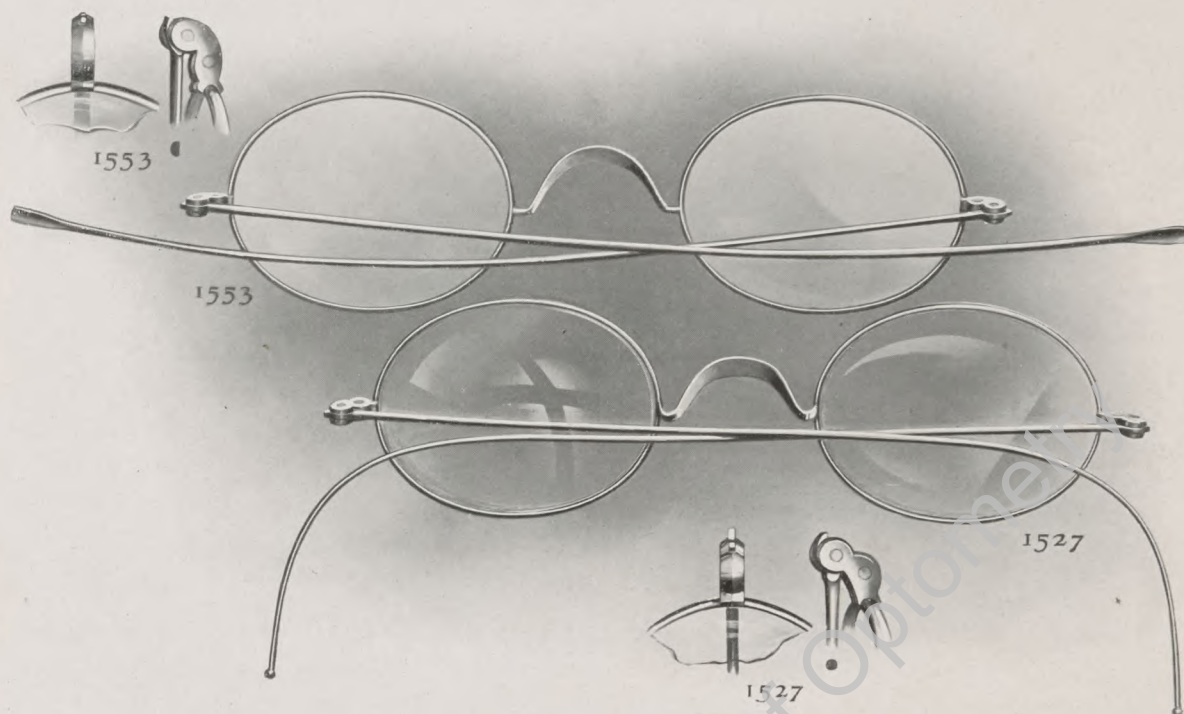
Styles such as bar spring frames and mountings, Revluc frames and mountings, Grab Temple frames and Patented Style frames and mountings are not made in the lowest grade of stock.

AOC Co Stock Complete stocks of staple styles and qualities are carried at all times. Lists of goods carried in AOC Co stock will be furnished upon application.



View of Polishing Room





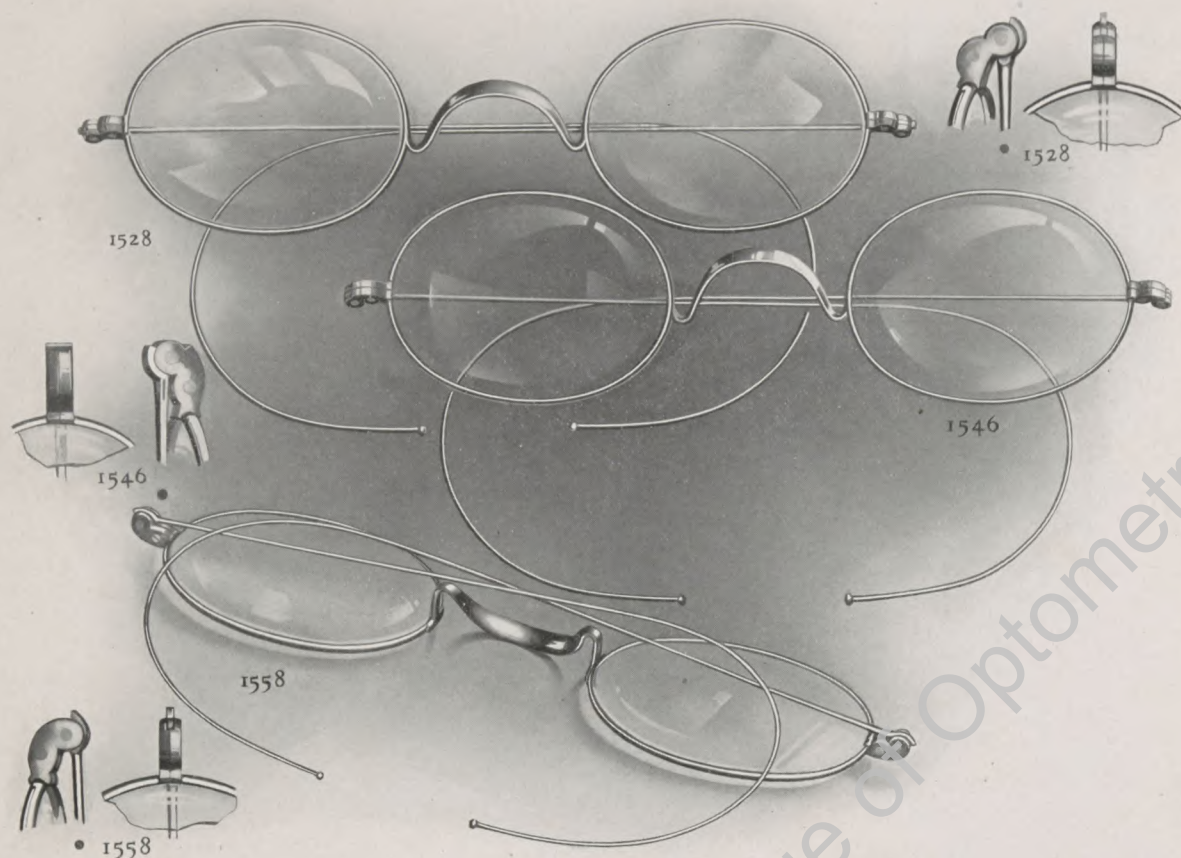
# GOLD-FILLED SPECTACLE FRAMES

CATALOGUE NUMBER				DESCRIPTION				
Straight Temple								
Beveled Short End Piece Solid Joint		Beveled End Piece Swaged Cap Joint		Beveled End Piece Solid Joint				
1520	-	-	-	1540	-	-	-	Medium, Flat eyewire, Flat temple
1521	-	-	-	1541	-	-	-	Medium, Flat temple
1523	-	-	-	1543	-	-	-	Medium, Half-round temple
1523½	-	-	-	1543½	-	-	-	Heavy, Half-round temple
Half-riding Temple								
1527	-	-	-	1547	-	-	-	Medium, Round-butt temple
1527½	-	-	-	1547½	-	-	-	Heavy, Round-butt temple

Above Half-riding Temple Frames supplied with "C" or "SS" Bridges.

All Gold-filled Spectacle and Eyeglass Frames have oval eyewire, except Nos. 1520, 1540 and 1550.

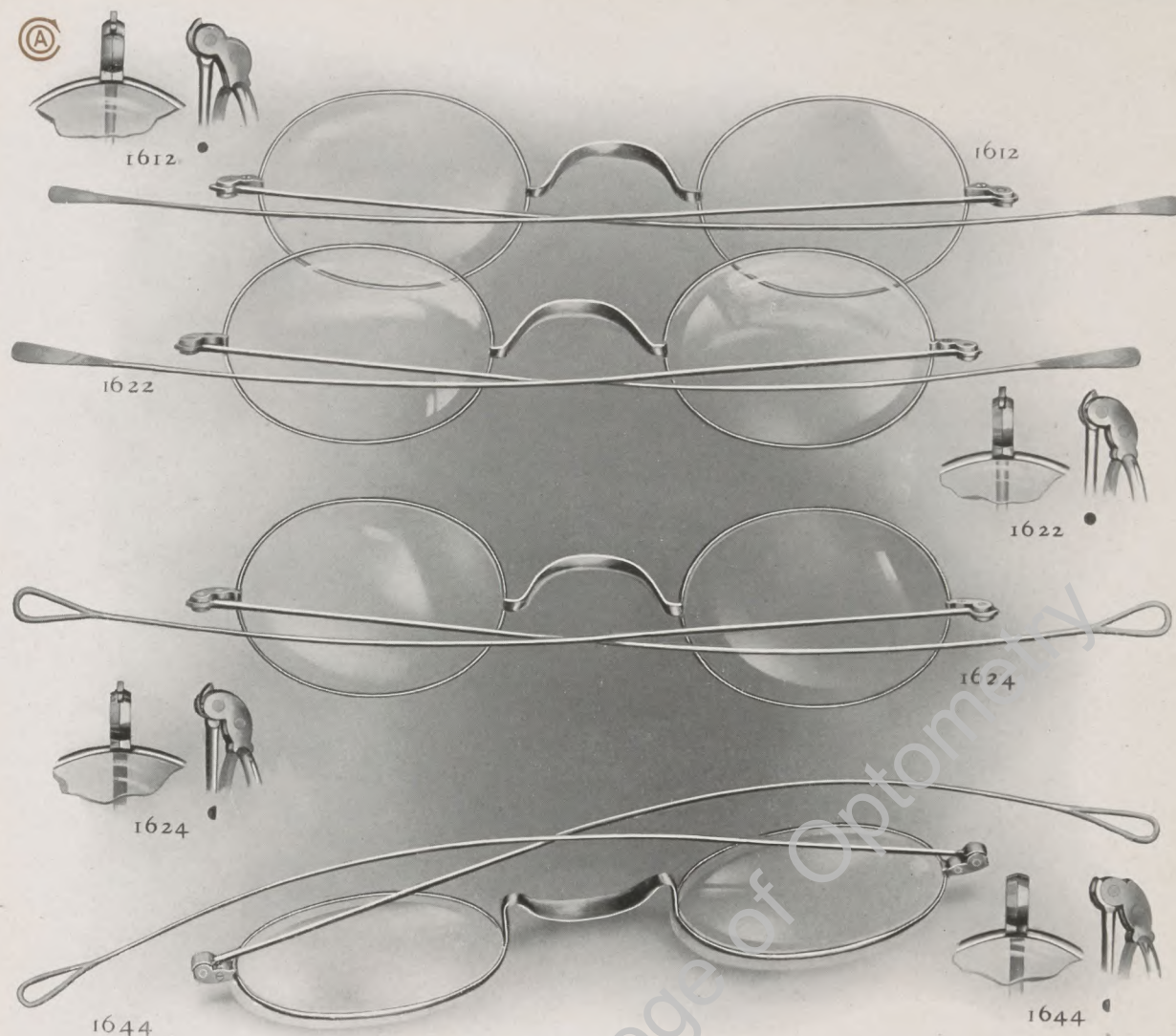




## GOLD-FILLED SPECTACLE FRAMES

CATALOGUE NUMBER				DESCRIPTION			
Riding Temple							
Beveled Short End Piece Solid Joint		Beveled End Piece Swaged Cap Joint		Beveled End Piece Solid Joint			
1528	-	1546	-	1558	-	-	Medium
1528½	-	1546½	-	1558½	-	-	Heavy
Cable Temple							
1528 C	-	1546 C	-	1558 C	-	-	Medium
1528½ C	-	1546½ C	-	1558½ C	-	-	Heavy





GOLD-FILLED SPECTACLE FRAMES. — PATENTED STYLES  
Straight Temple, Medium Weight, Extra Finish

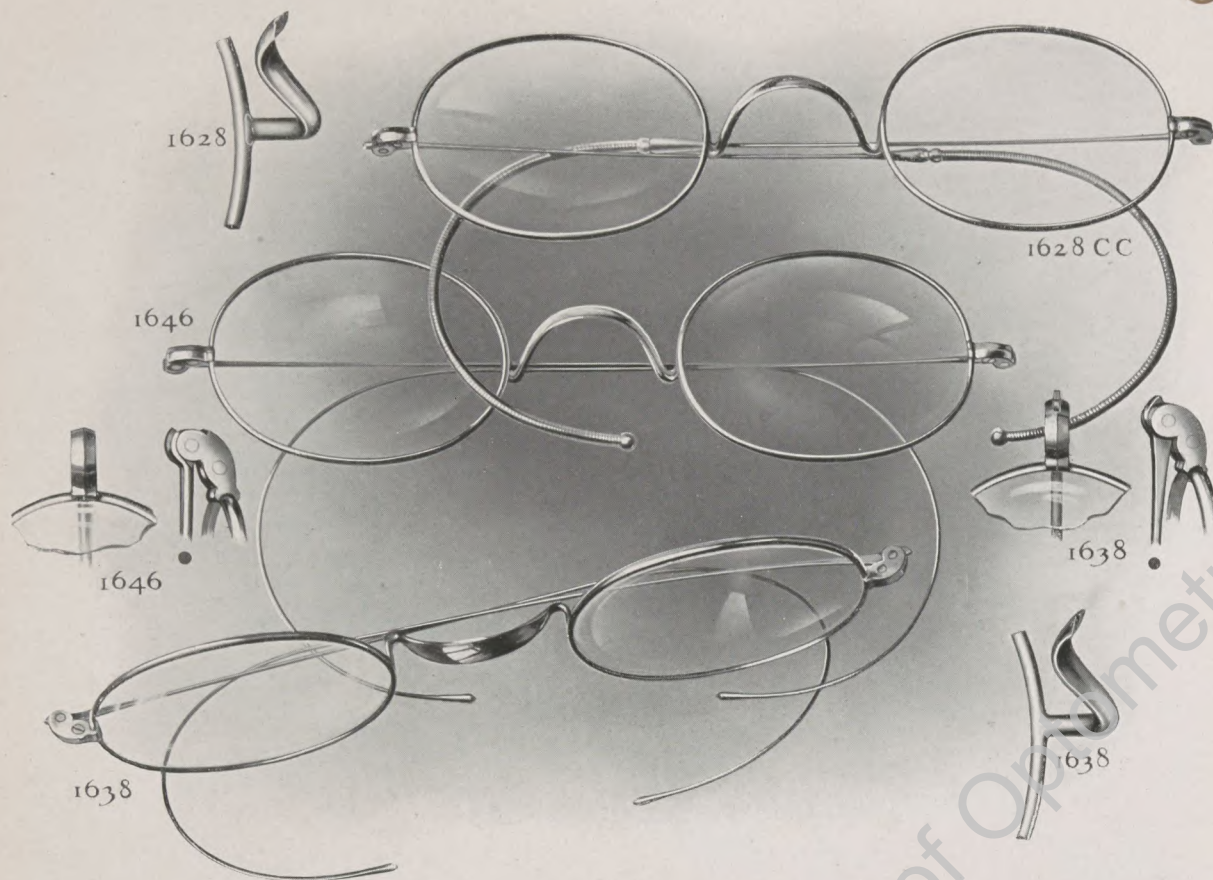
CATALOGUE NUMBER			DESCRIPTION		
Beveled Short End Piece	Beveled End Piece	Beveled End Piece			
Solid Joint	Solid Joint	Swaged Cap Joint			
1612 - - -	1622 - - -	1642 - - -	Round, flat tip		
1613 - - -	1623 - - -	1643 - - -	Half-round, spoon tip		
1614 - - -	1624 - - -	1644 - - -	Half-round, open tip		
		1644-21 - - -	Half-round, open tip, English end piece		
1632-9 - - -	1632 - - -	1632-6 - - -	Round, flat tip, flush bridge		
	1633 - - -		Half-round, spoon tip, flush bridge		
			Half-riding Temple		
1617 - - -	1627 - - -	- - - - -	Round butt		
	1637 - - -	- - - - -	Flat butt, flush bridge		

Specify whether "C" or "SS" Bridges are wanted in ordering.

Round Temple Frames supplied with open tip when so ordered.

No. 1 style End Piece can be supplied on any of the above frames having Swaged Cap Joint.



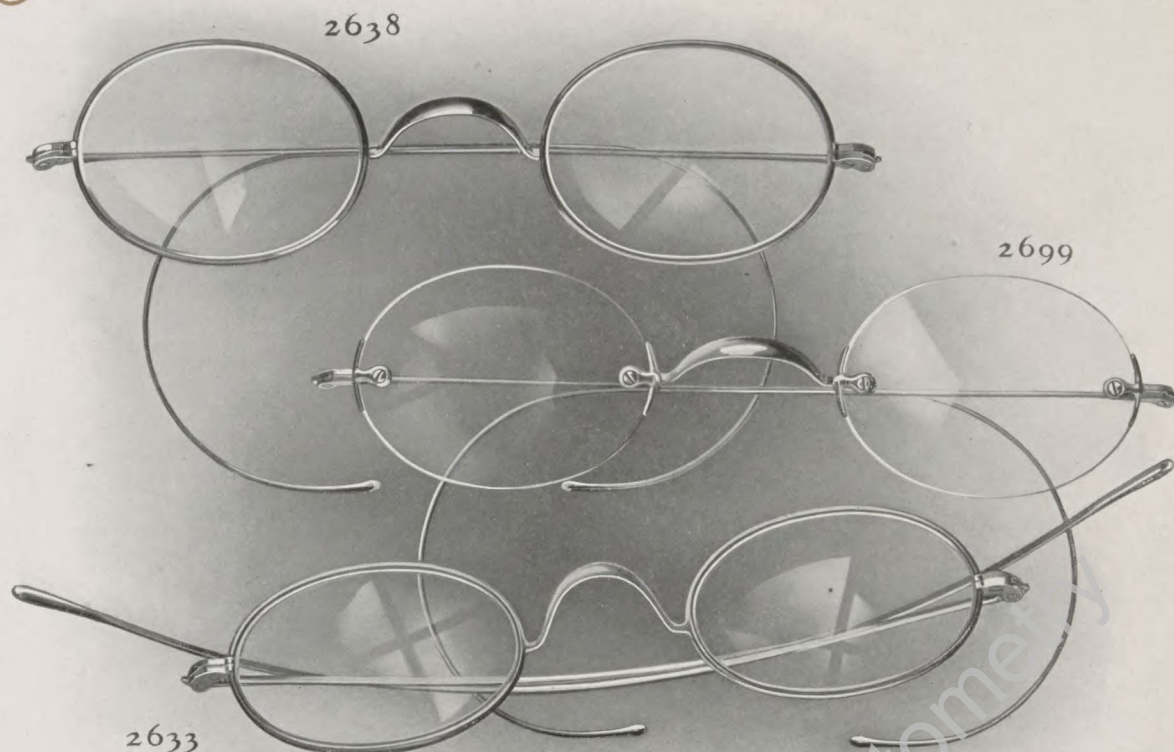


## GOLD-FILLED SPECTACLE FRAMES.—PATENTED STYLES

CATALOGUE NUMBER				DESCRIPTION
Riding Temple				
Beveled Short End Piece Solid Joint	Beveled End Piece Solid Joint	Beveled End Piece Swaged Cap Joint		Extra Finish
1618 - - - -	1628 - - - -	1636 - - - -	- - - -	Medium
1618 1/2 - - -	1628 1/2 - - -	1636 1/2 - - -	- - - -	Heavy
	1638 - - - -	1646 - - - -	- - - -	Medium
		1646 1/4 - - -	- - - -	Heavier
	1638 1/2 - - -	1646 1/2 - - -	- - - -	Heavy
		1646-21 - - -	- - - -	Medium
Cable Temple				
1618 C - - - -	1628 C - - - -	1636 C - - - -	- - - -	Medium
1618 1/2 C - - -	1628 1/2 C - - -	1636 1/2 C - - -	- - - -	Heavy
	1638 C - - - -	1646 C - - - -	- - - -	Medium
		1646 1/4 C - - -	- - - -	Heavier
	1638 1/2 C - - -	1646 1/2 C - - -	- - - -	Heavy
		1646-21 C - - -	- - - -	Medium

Nos. 1618, 1628 and 1638 styles have flat-butt Temples. Nos. 1638 and 1646 have flush Bridge.  
 Pear Tip Temples regularly supplied on all above Riding Temple Frames.  
 Comfort Cable (CC) supplied on any above styles; when so ordered, add CC to catalogue number.  
 No. 21 style End Piece can be supplied on any above Frames having Swaged Cap Joint.





### SPECIAL GOLD-FILLED SPECTACLE FRAMES AND MOUNTINGS

FRAMES				CATALOGUE NUMBER		MOUNTINGS		DESCRIPTION
Straight Temple	Half-riding Temple	Riding Temple	Cable Temple	Riding Temple	Cable Temple	Beveled End Piece, Solid Joint, Medium Weight		
2553	2557	2558	2558 C	2599	2599 C	Regular construction		
2633	2637	2638	2638 C	2699	2699 C	Patented construction		

Nos. 2638 and 2699 have Pear Tip flat-butt Temples.

Nos. 2633, 2557 and 2637 regularly supplied with "SS" Bridges.

Above goods in 2500 series made only with 10 karat Bridge and Temples.

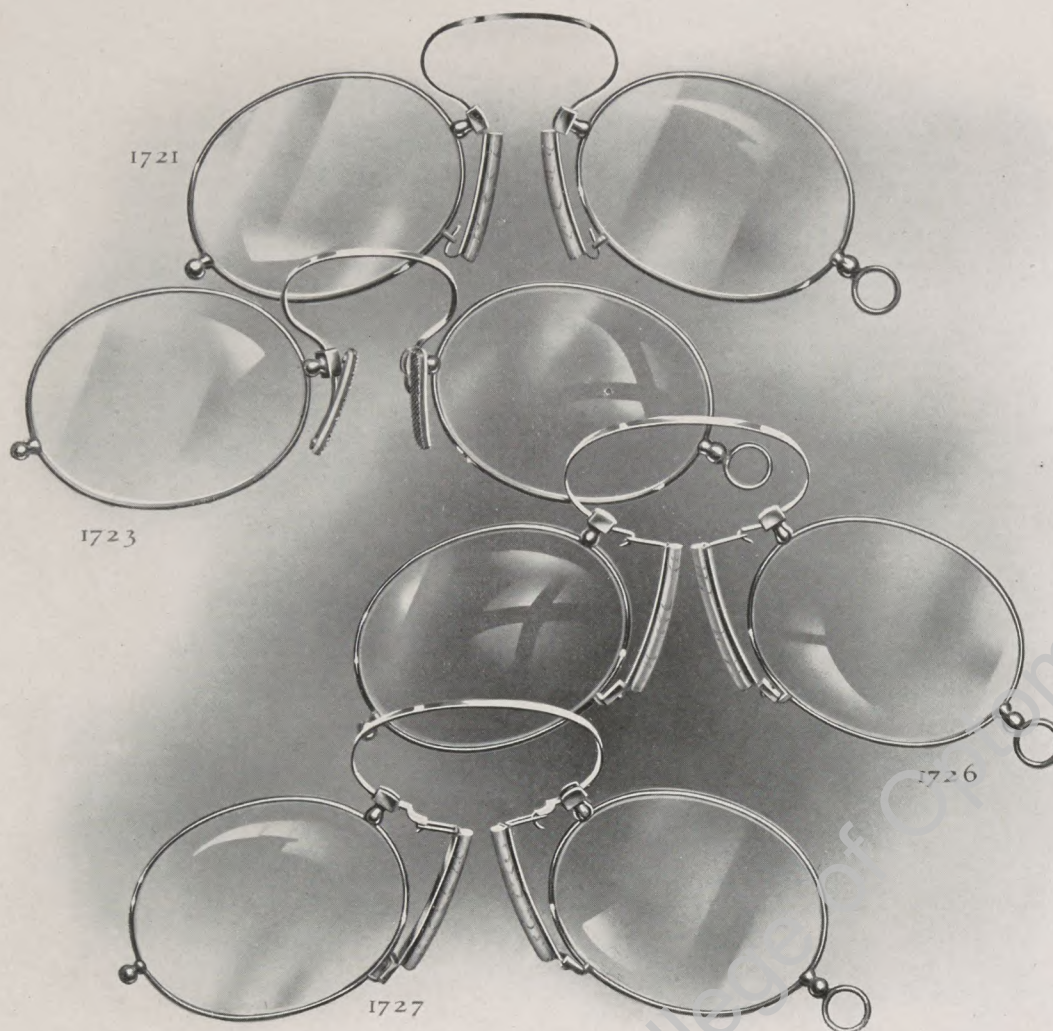
Above goods in 2600 series made only in patented construction with 12 karat Bridge and Temples.

### SPECIAL GOLD-FILLED SPECTACLE FRAMES AND MOUNTINGS

FRAMES				CATALOGUE NUMBER		MOUNTINGS		DESCRIPTION
Straight Temple	Half-riding Temple	Riding Temple	Cable Temple	Riding Temple	Cable Temple	Beveled End Piece, Solid Joint, Medium Weight, Made in 10 karat Gold-filled only		
3553	3557	3558	3558 C	3599	3599 C	Regular construction		

No. 3557 supplied with "SS" Bridge.

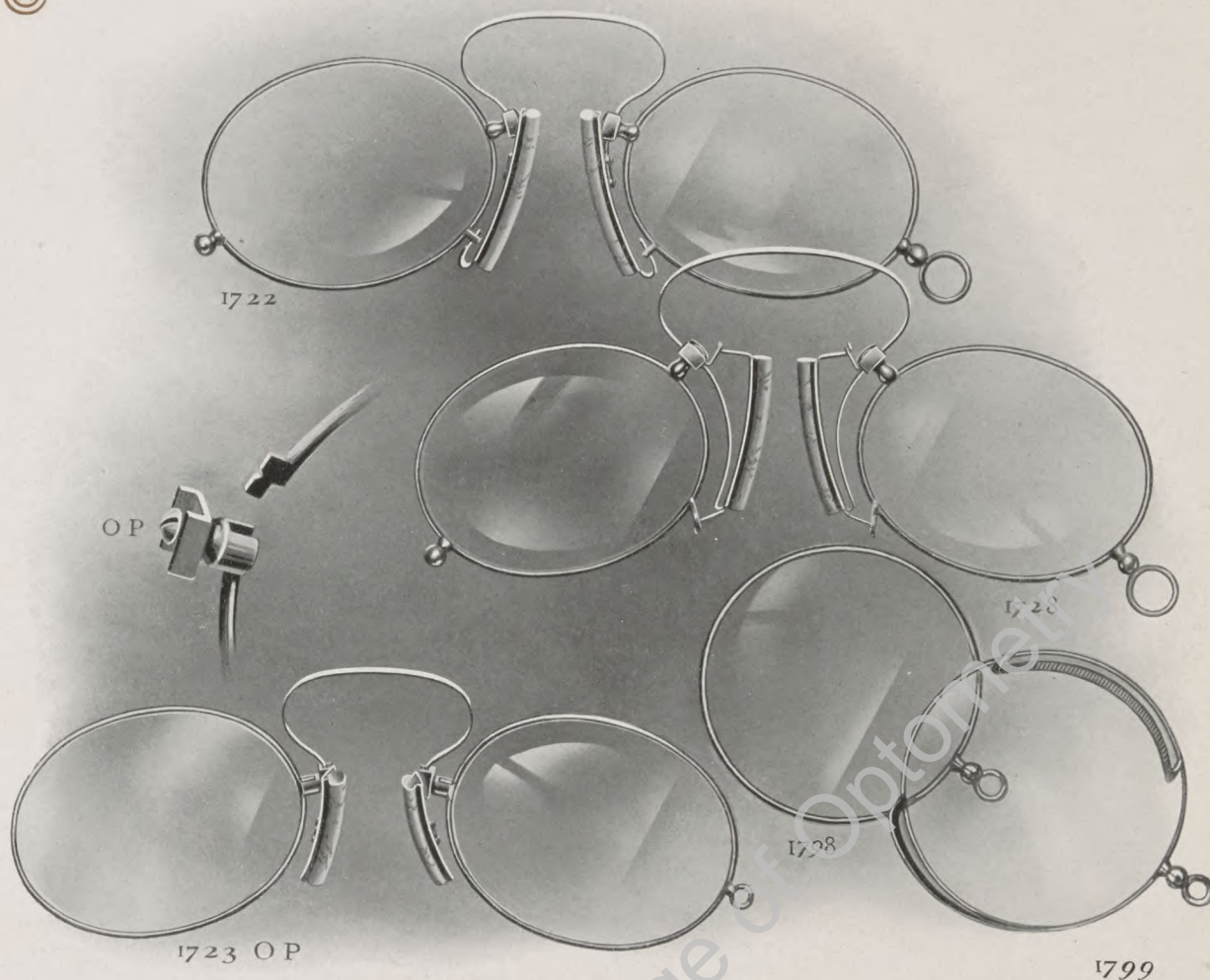




## GOLD-FILLED EYEGLASS FRAMES

Catch and Catch Pin supplied only when so ordered.  
Eyeglasses made with Cork Guards unless otherwise ordered.





# GOLD-FILLED EYEGLASS FRAMES

CATALOGUE NUMBER	DESCRIPTION
1722	Ball Ring Handle, Medium Weight
1728	Long Offset
1729	Double Adjustable
	Double Adjustable Offset
	Open Post
1721 O.P.	Ring for Cord, Medium Weight
1723 O.P.	Rigid
	Offset

Cork Guards supplied unless otherwise ordered.

# GOLD-FILLED OXFORDS OR MONOCLES

CATALOGUE NUMBER	DESCRIPTION
1798	Medium Weight, Ball Ring Handle
1799	Oxford
	Gallery Oxford

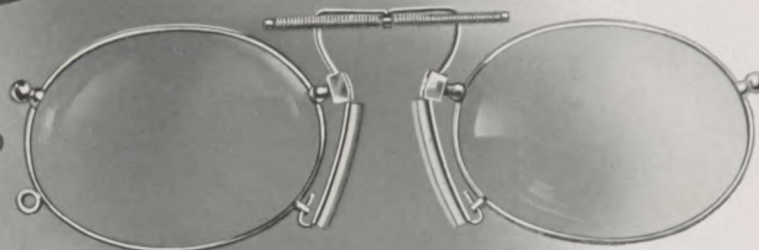




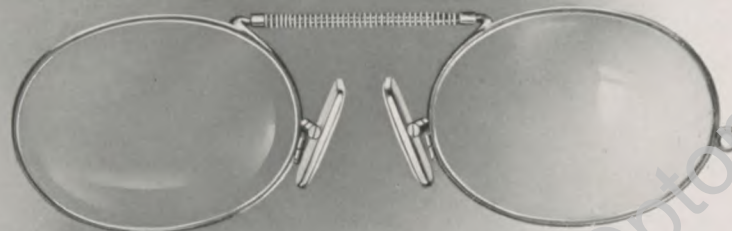
1723 AA



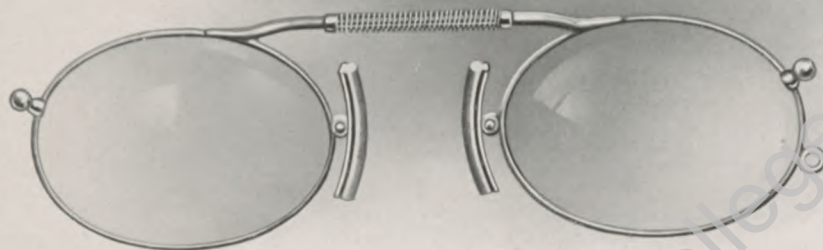
1721 D



1735 L



1733



## GOLD-FILLED BAR SPRING EYEGLASS FRAMES

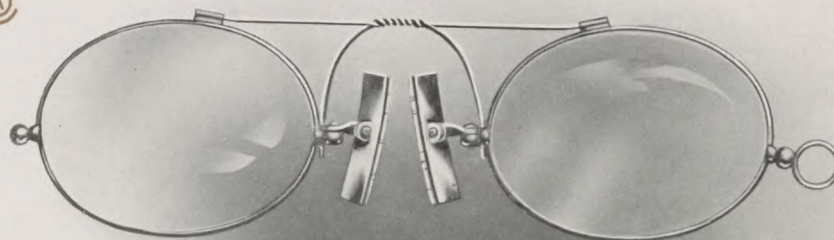
CATALOGUE NUMBER				DESCRIPTION
"AA"	"D"	"F"		Ring for Cord, Medium Weight
1721 AA	1721 D	1721 F		Rigid
1723 AA	1723 D	1723 F		Offset
1726 AA	1726 D	1726 F		Adjustable
"Astig" or Rigid Bar Spring, Rocking Offset Guards				
Round Bar	Oval Bar	Flat Bar	Triple Bar	
	1735 L			Light
1733	1735	1736	1737	Medium

Cork Guards supplied unless otherwise ordered.

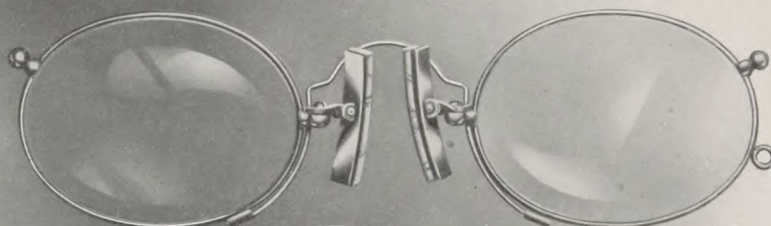
No. 1735 L supplied with Ball Joints or Invisible Joints as ordered.

Nos. 1735, 1736 and 1737 have small (19 H) loop Handle instead of Ring for Cord.





1755 R



1757 R



1752

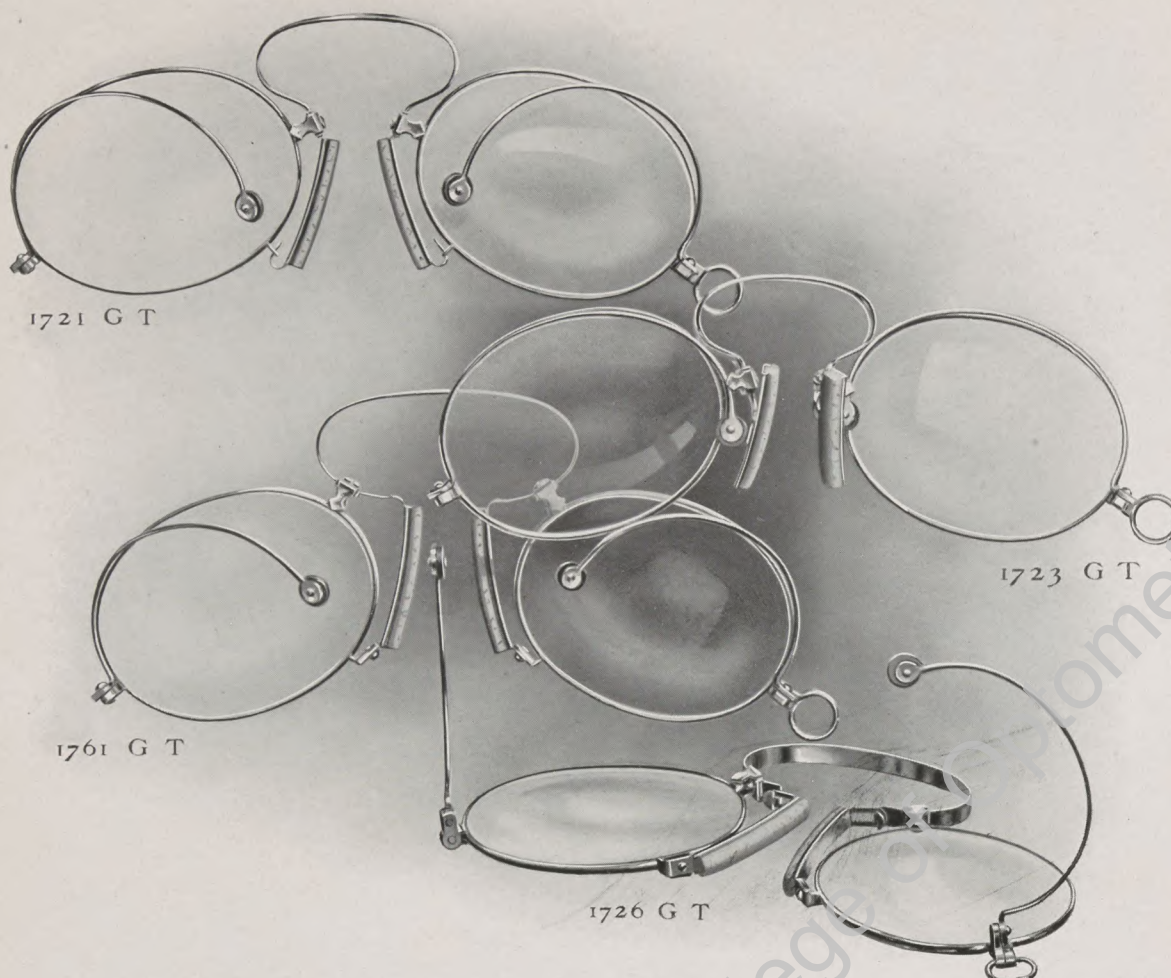


1739

## GOLD-FILLED REVLUC EYEGGLASS FRAMES

CATALOGUE NUMBER										DESCRIPTION
Interchangeable Offset				Rocking		Solid				
1750	-	-	-	1755 R	-	1755 S	-	-	-	Medium
1751	-	-	-	-	-	-	-	-	-	Medium
1752	-	-	-	1757 R	-	1757 S	-	-	-	Medium





## GOLD-FILLED EYEGLASS FRAMES—GRAB TEMPLE

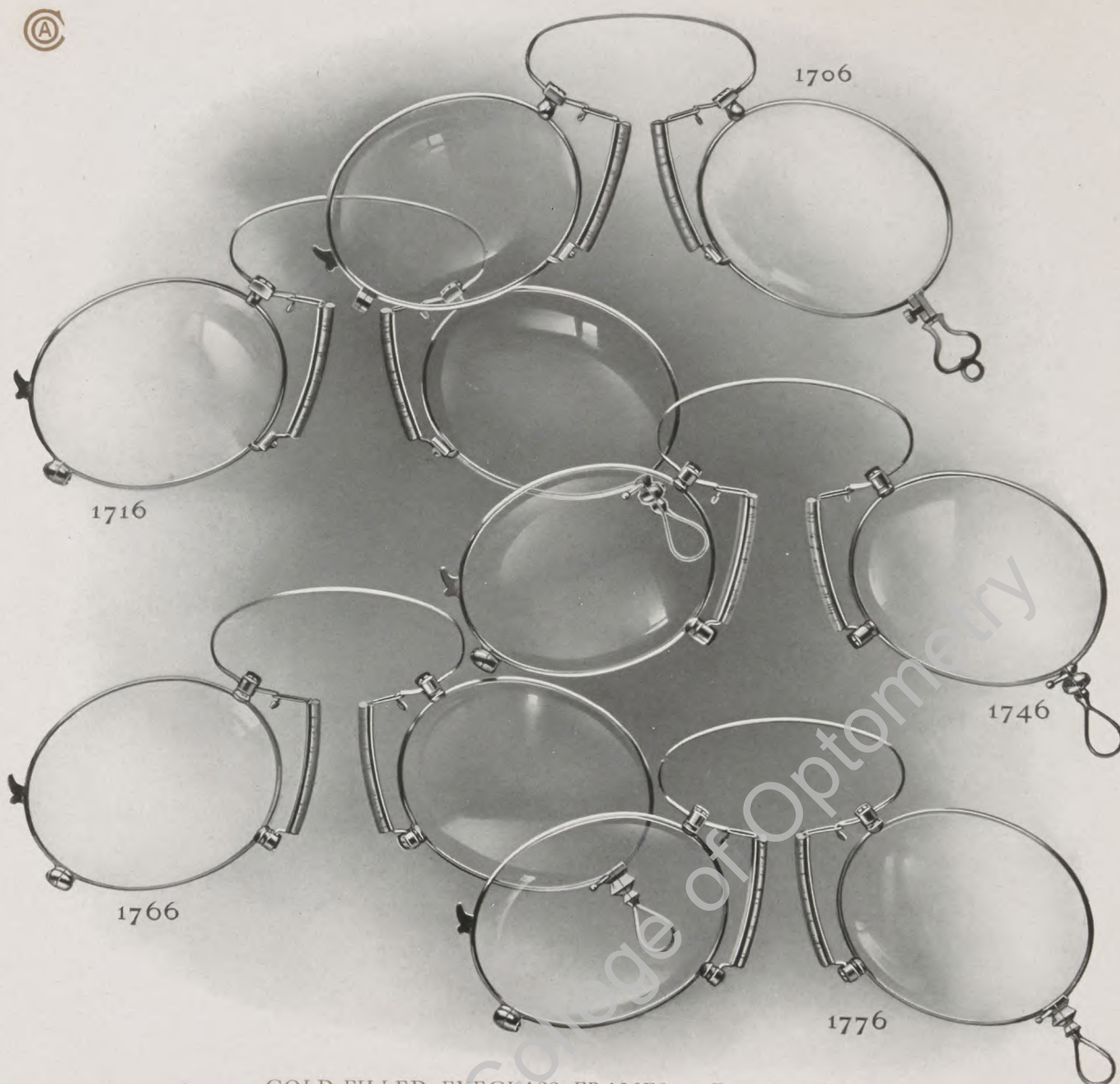
CATALOGUE NUMBER

DESCRIPTION

1721 G.T.	-	-	-	-	-	-	-	-	-	Ring Handle, Medium Weight
1723 G.T.	-	-	-	-	-	-	-	-	-	Rigid
1726 G.T.	-	-	-	-	-	-	-	-	-	Offset
1727 G.T.	-	-	-	-	-	-	-	-	-	Adjustable
1761 G.T.	-	-	-	-	-	-	-	-	-	Adjustable Offset
										Solid Adjustable

Temples on above Frames regularly made with Zylonite pads.  
Cork Guards supplied unless otherwise ordered.





GOLD-FILLED EYEGLOSS FRAMES. — EUROPEAN STYLES

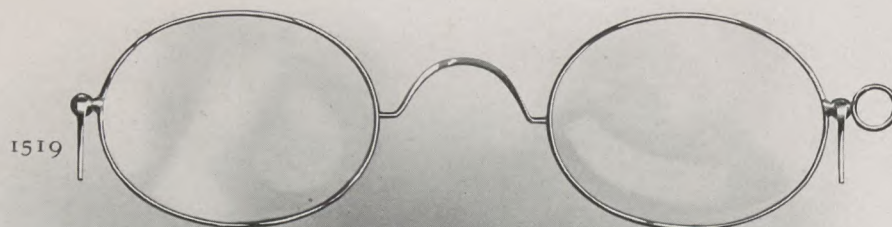
CATALOGUE NUMBER				DESCRIPTION
Fancy Handle Plated Joints	Large Ball Pear Handle	Ball Pear Handle Rounded Posts		
1706	1711	1741	- - -	Japanese Pattern, Rigid
1707	1716	1746	- - -	Canadian Pattern, Adjustable
	1717	1747	- - -	Canadian Pattern, Adjustable Offset
		Bolstered Handle		
Rounded Posts	Capped Post Screws			
1766	1771	- - -	- - -	Canadian Pattern, Rigid
1767	1776	- - -	- - -	Canadian Pattern, Adjustable
	1777	- - -	- - -	Canadian Pattern, Adjustable Offset

Nos. 1711 and 1741 regularly supplied with tied Springs 70 mm. long; all other styles have Springs 63 mm. long. Longer Springs supplied when so ordered.

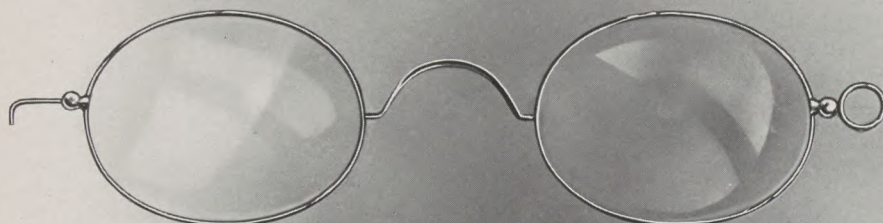
Cork Guards supplied unless otherwise ordered.

All above styles regularly supplied with Catch and Pin.

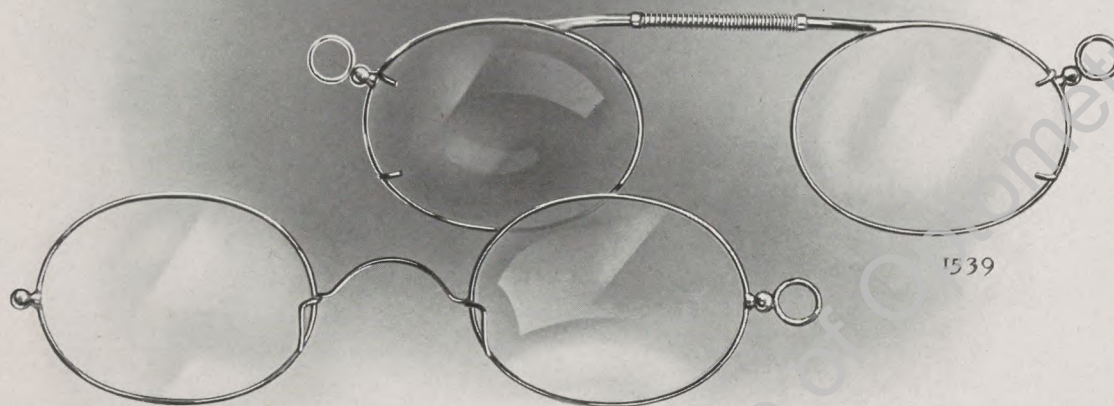




1519



1529



1539

1549 MEDIO

## GOLD-FILLED GRAB FRONT FRAMES

CATALOGUE NUMBER				DESCRIPTION
Oval Wire Bridge	Oval Wire Bridge	Rigid Bar Spring	"AA" Bar Spring	
1519	1529	1539	1539 AA	Medium

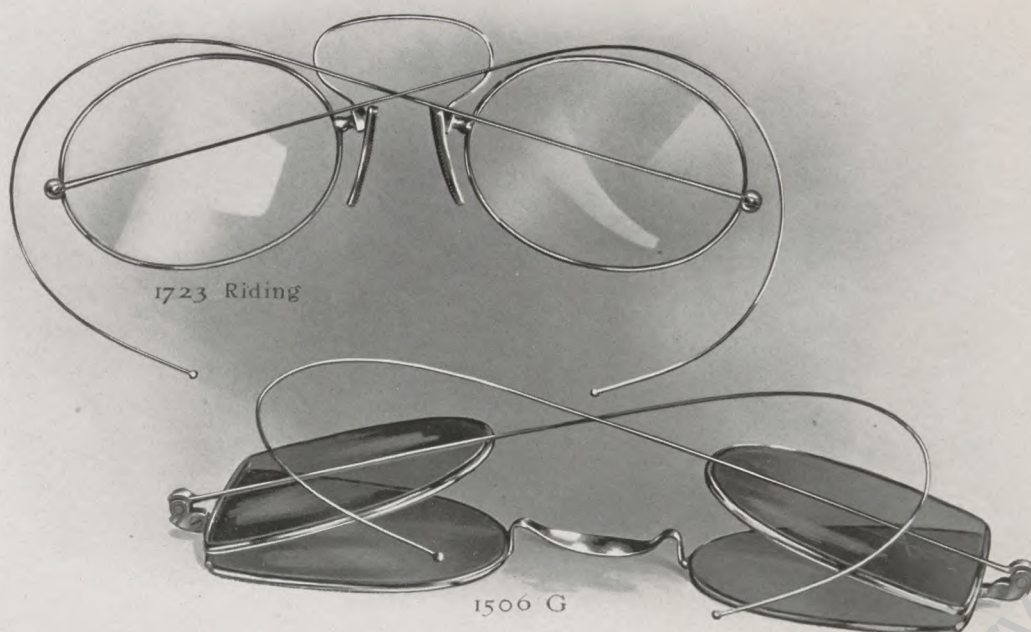
## GOLD-FILLED MEDIO GRAB FRONT FRAMES. — PATENTED

CATALOGUE NUMBER				DESCRIPTION
For "SS" Bridge	For "C" Bridge			Round Wire Bridge
1549 Medio	1559 Medio			Medium

No. 1529 style sometimes called Grab Back.

No. 1529 style supplied with F eye when so ordered. Specify size of eye desired. See page 29.





## GOLD-FILLED COMBINATION AND SPECTACLETTE FRAMES

CATALOGUE NUMBER

DESCRIPTION

## Riding Temple (No. 1558)

Invisible End Piece  
Solid Joint

Medium Weight

1723 Riding

1726 Riding

1725

Combination, Offset  
Combination, Adjustable  
Spectaclette

## Cable Temple (No. 1558 C)

1723 Riding C

1726 Riding C

1725 C

Combination, Offset  
Combination, Adjustable  
Spectaclette

## GOLD-FILLED DOUBLE EYE HORSESHOE FRAMES

CATALOGUE NUMBER

DESCRIPTION

## Riding Temple

Rounded End Piece  
Swaged Cap Joint

"SS" Bridge, Medium Weight

1506 P

1506 G

Plated End Piece  
Gold End Piece

## Cable Temple

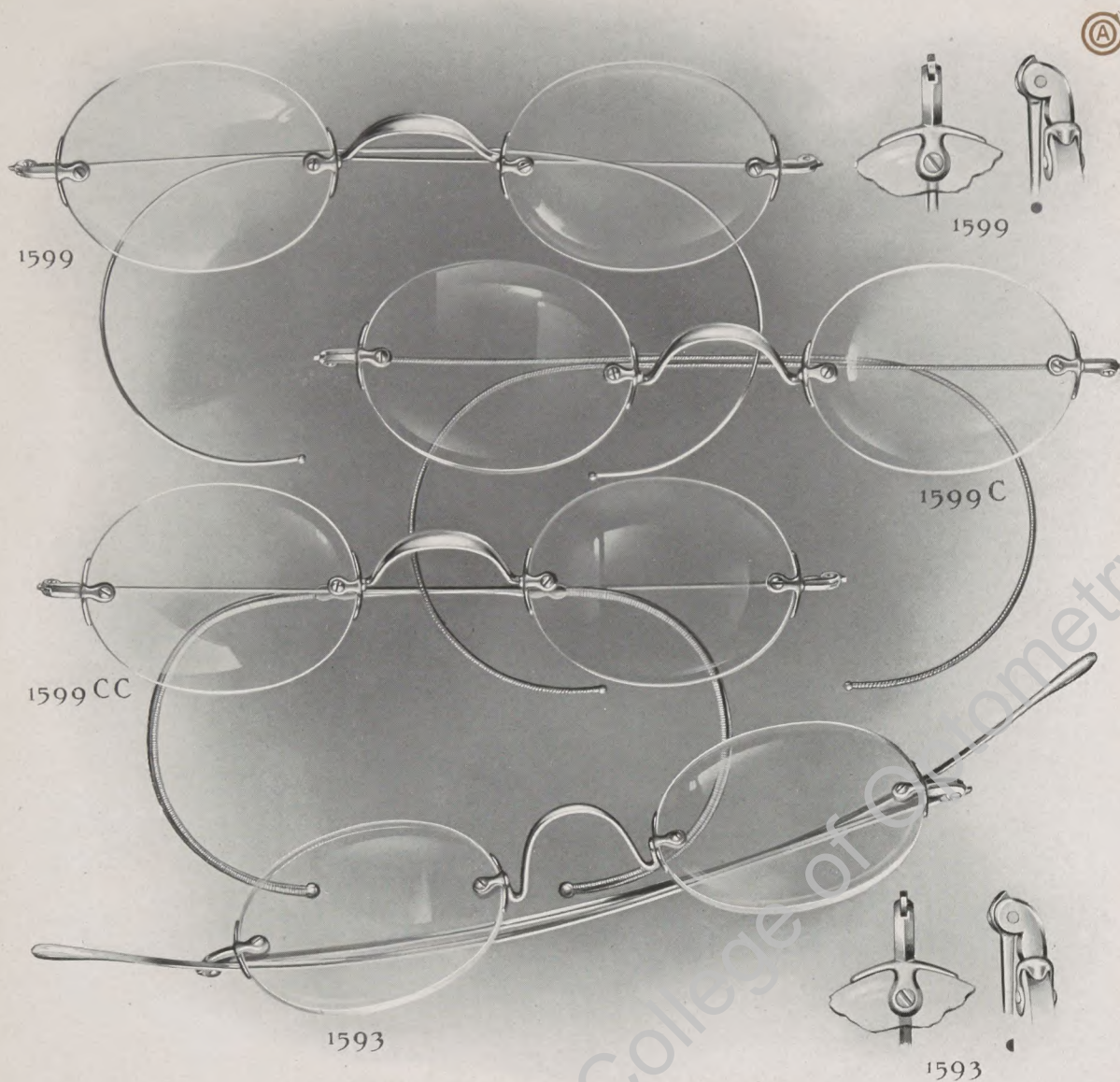
1506 P.C.

1506 G.C.

Plated End Piece  
Gold End Piece

No. 1725 (Style of No. 818, page 58, Gold Section) may be supplied also with Sanitary Guards.  
Cork Guards supplied unless otherwise ordered on above Combination and Spectaclette Frames.  
Supplied in H, HH and HHH eye. For sizes, see Introductory Section, page 29.



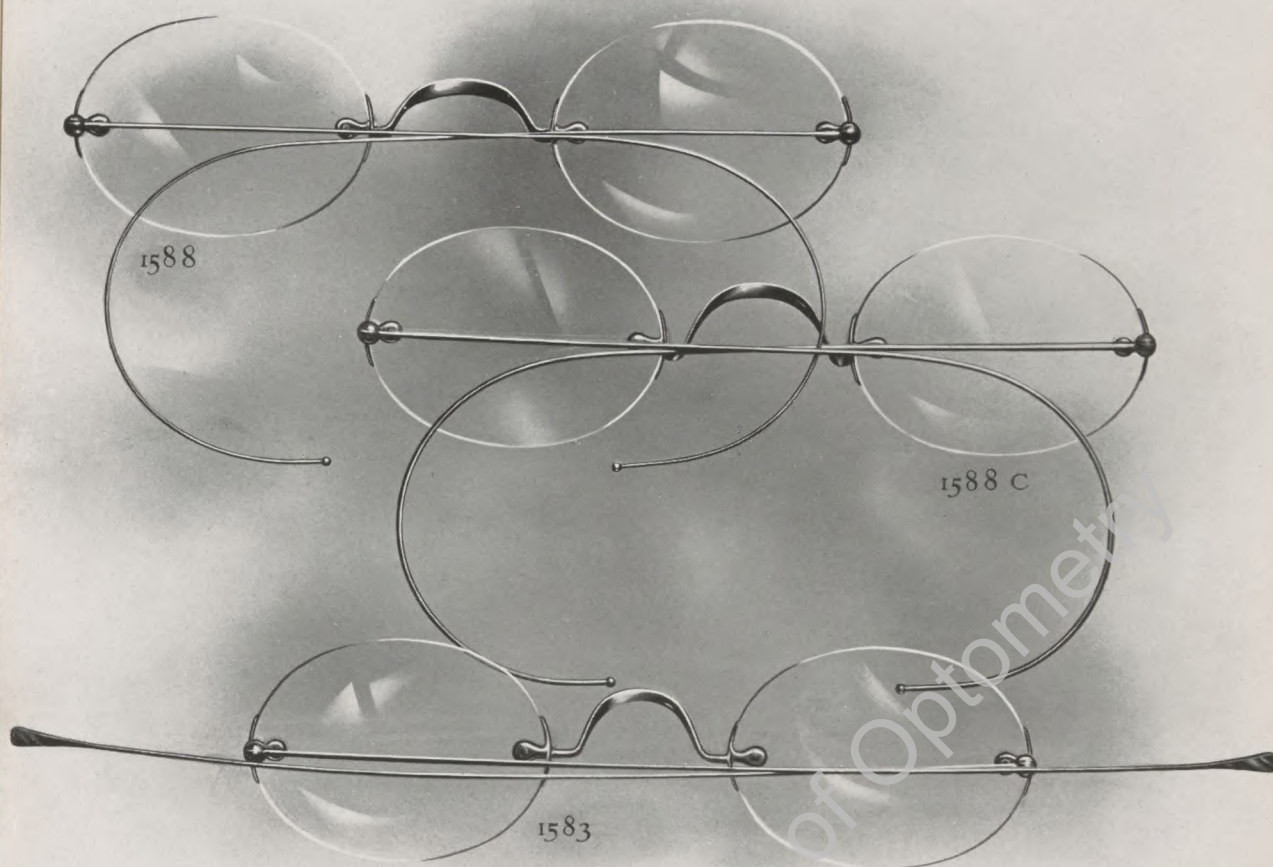


## GOLD-FILLED SPECTACLE MOUNTINGS

CATALOGUE NUMBER	DESCRIPTION
Straight Temple	
Beveled End Piece	
Solid Joint	
1592	Medium, Round
1593	Medium, Half-round
Riding Temple	
1599	Medium
1599½	Heavy
Cable Temple	
1599 C	Medium
1599½ C	Heavy

Specify "C" or "SS" Bridges on Nos. 1592 and 1593.



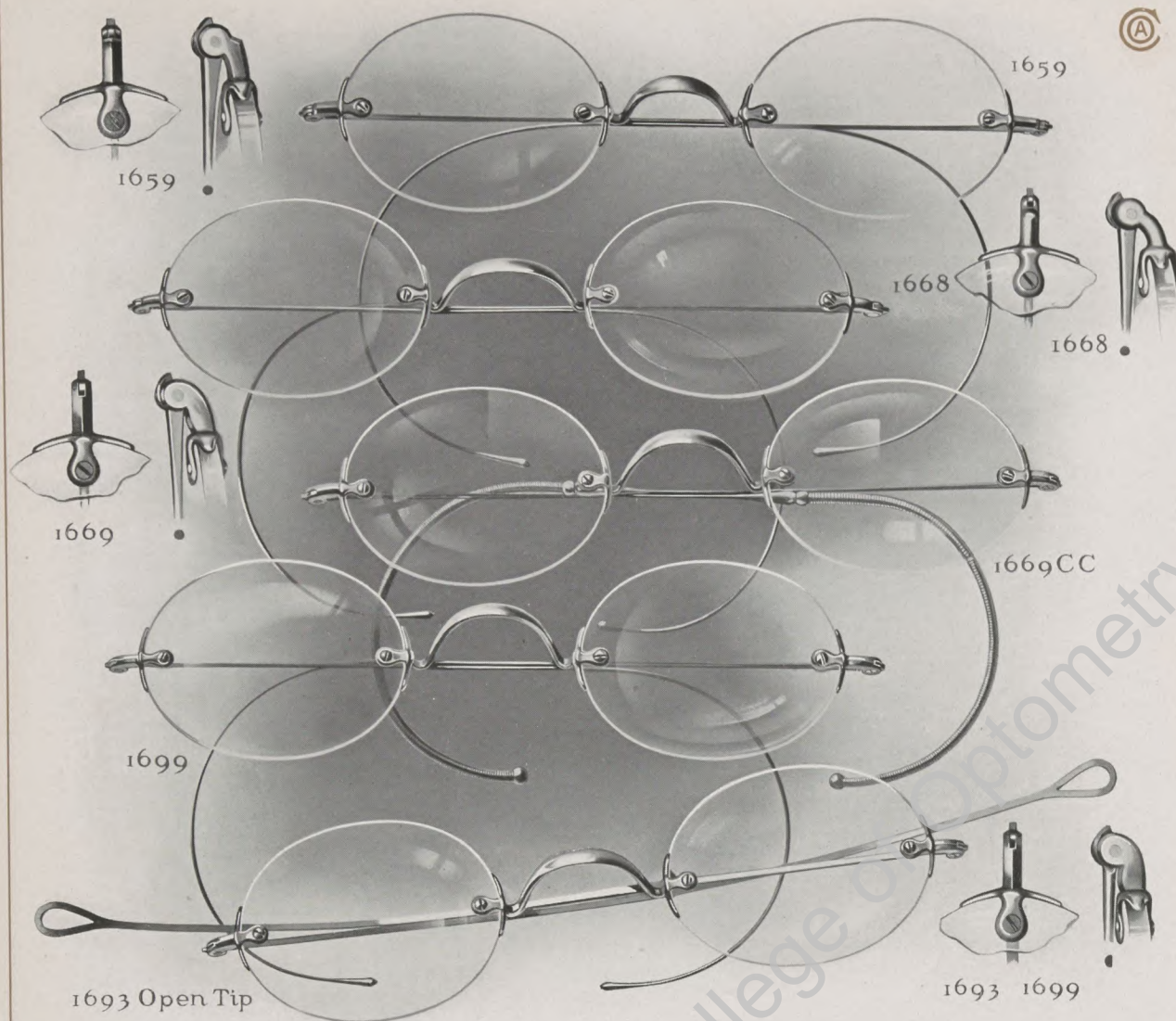


# GOLD-FILLED SPECTACLE MOUNTINGS

CATALOGUE NUMBER	DESCRIPTION
Patented Invisible End Piece Solid Joint	
1582	Medium, Round
1583	Medium, Half-round
Straight Temple	
Riding Temple	
1588	Medium
Cable Temple	
1588 C	Medium

Specify "C" or "SS" Bridges on Nos. 1582 and 1583.

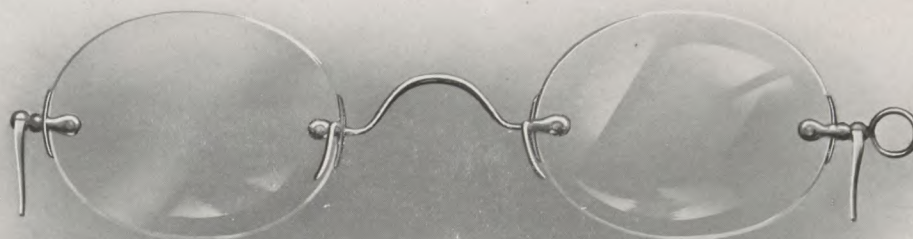




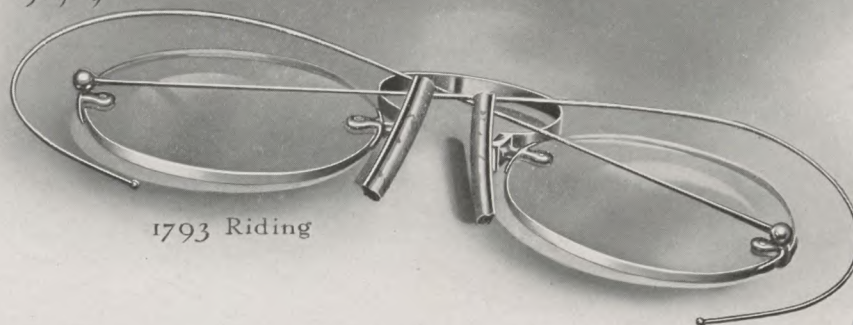
GOLD-FILLED SPECTACLE MOUNTINGS.—PATENTED STYLES

Flat-butt, Pear Tip Temples regularly supplied on above Riding Temple Frames.  
 Flush Bridges regularly supplied on all above styles except Nos. 1659 and 1659 C.  
 Specify whether "C" or "SS" Bridges are wanted in ordering above Straight Temple Frames.





1519-9



1793 Riding

GOLD-FILLED GRAB FRONT MOUNTINGS

CATALOGUE NUMBER

DESCRIPTION

1519.9

1529.9

Oval Wire Bridge, with Handle and Hooks  
Medium

No. 1529.9 style sometimes called Grab Back.

GOLD-FILLED MEDIO GRAB FRONT MOUNTINGS. — PATENTED

CATALOGUE NUMBER

DESCRIPTION

For "SS" Bridge

For "C" Bridge

Oval Wire Bridge, No Handle  
Medium

1549.9

1559.9

If "Showy" Bridge is desired, order should so specify.

GOLD-FILLED COMBINATION AND SPECTACLETTE MOUNTINGS

CATALOGUE NUMBER

DESCRIPTION

Patented Invisible End Piece  
Solid Joint

Riding Temple (No. 1599)

1793 Riding  
1796 Riding  
1598

Medium Weight  
Combination, Offset  
Combination, Adjustable  
Spectaclette

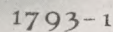
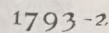
Cable Temple (No. 1599 C)

1793 Cable  
1796 Cable  
1598 C

Combination, Offset  
Combination, Adjustable  
Spectaclette

Cork Guards supplied unless otherwise ordered.  
No. 1598 style of No. 898, see page 62.

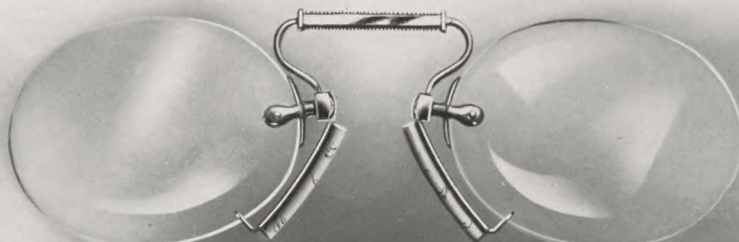




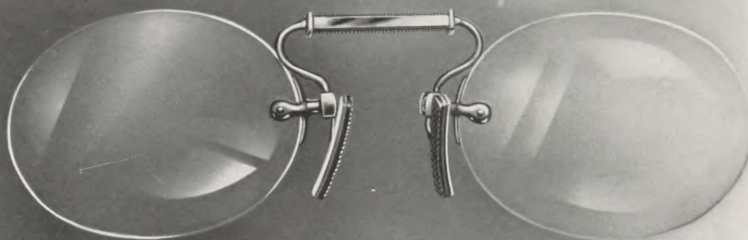
## GOLD-FILLED EYEGLASS MOUNTINGS

Cork Guards supplied unless otherwise ordered.

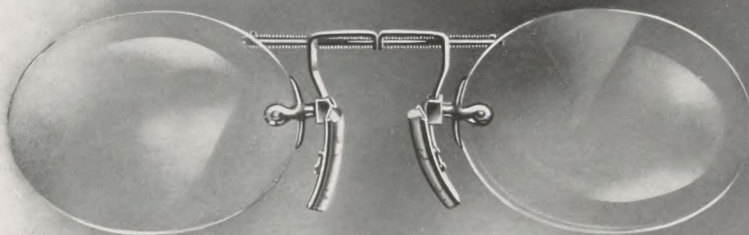




1790 AA



1793 AA



1793 D



1787

GOLD-FILLED BAR SPRING EYEGGLASS MOUNTINGS

CATALOGUE NUMBER				DESCRIPTION			
"AA"	"D"	"F"	Rigid Bar				
1790 AA - -	1790 D - -	1790 F - -	- - - -	- - - -	- - - -	- - - -	Medium, Rigid
1793 AA - -	1793 D - -	1793 F - -	- - - -	- - - -	- - - -	- - - -	Medium, Offset
			1795 L	- - - -	- - - -	- - - -	Light, Rocking

GOLD-FILLED REVLUC EYEGGLASS MOUNTINGS

CATALOGUE NUMBER	DESCRIPTION									
1782	-	-	-	-	-	-	-	-	-	Medium Weight
1787 L	-	-	-	-	-	-	-	-	-	Interchangeable Offset
1787 S	-	-	-	-	-	-	-	-	-	Rocking
										Solid

Cork Guards supplied unless otherwise ordered.

No. 1795 L style of No. 1735 L. see page 79.



goods made at the time we first introduced them to the optical world. The name ALUMNICO is our registered trade mark and is applied exclusively to the AOCo product, although it has, together with the goods themselves, been imitated by others, a recognition of the superior excellence of the AOCo line.

In Alumnico spectacle frames we employ many of the special patented features that have made our gold-filled goods so well and favorably known. The popular pear tip temple is regularly supplied on Nos. 1338 and 1358 frames and can be supplied on other styles when so ordered.

Alumnica is a grade of stock resembling *Alumnico*, but of somewhat lower quality.

German Silver is a very satisfactory metal for low grade goods. It is regularly finished with nickel plate.

Roman Alloy (imitation gold) frames and mountings are made in large quantities with the idea of upholding quality on the cheaper lines, and yet being able to meet the competition of inferior makes.

Regaloid We call special attention to the AOCo line of Regaloid goods which are made from a special yellow alloy, admitting of an extra fine finish. They are highly polished and gold-plated, having an excellent color and are in every respect the closest imitation of gold frames made. In color they resemble 14k Gold goods.

Certain styles in spectacles listed on the following pages are mentioned as being supplied in AOCo B and BC Assortments. The AOCo Assortments for "C" and "SS" bridges are given on page 37 of the Introductory Section.

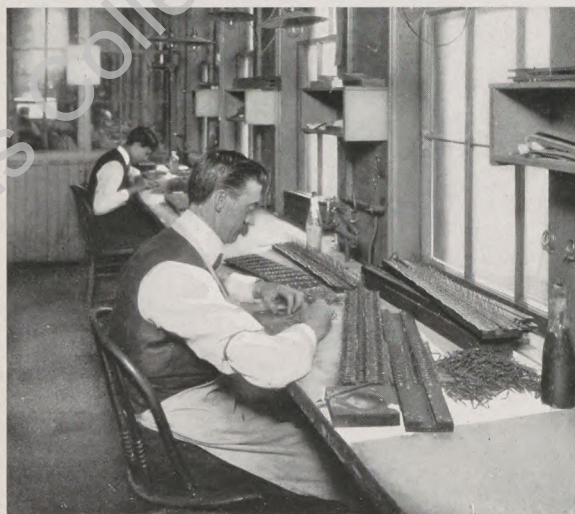
#### REGISTERED TRADE MARKS

General trade mark	©	For Alumnico Goods (Patented Styles), ALUMNICO PAT.
For Ajax Strap Goods	Ⓐ	For Alumnica Goods, ALUMNICA
For Alumnico Goods	ALUMNICO	For Roman Alloy Goods, ROMAN ALLOY
		For Regaloid Goods, REGALOID

For other trade marks, see page 27

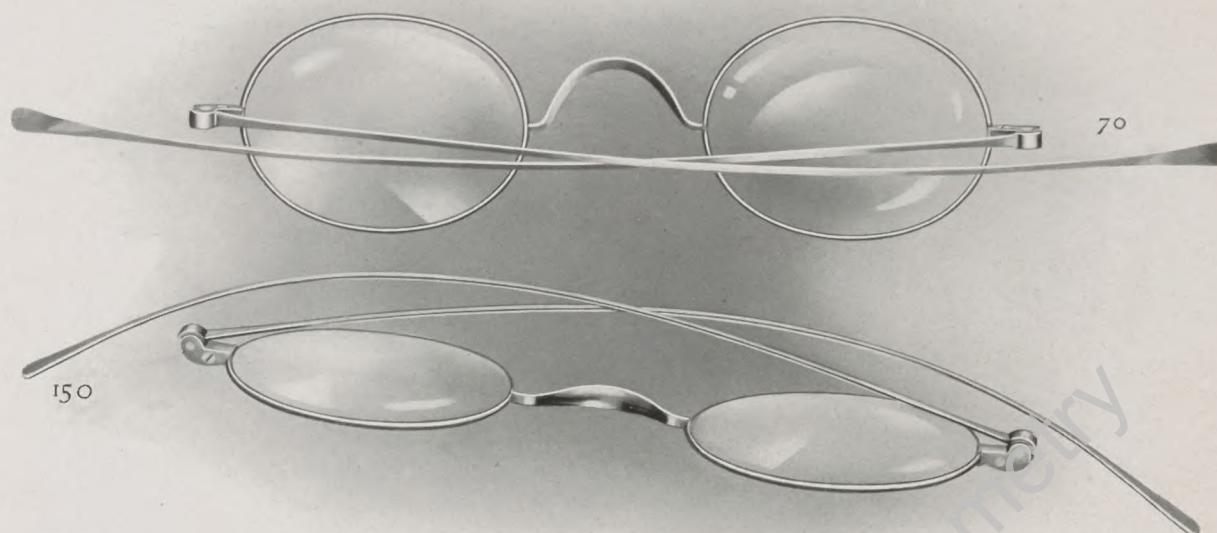


Steel Spectacles ready for finishing



Soldering Alumnico Fronts



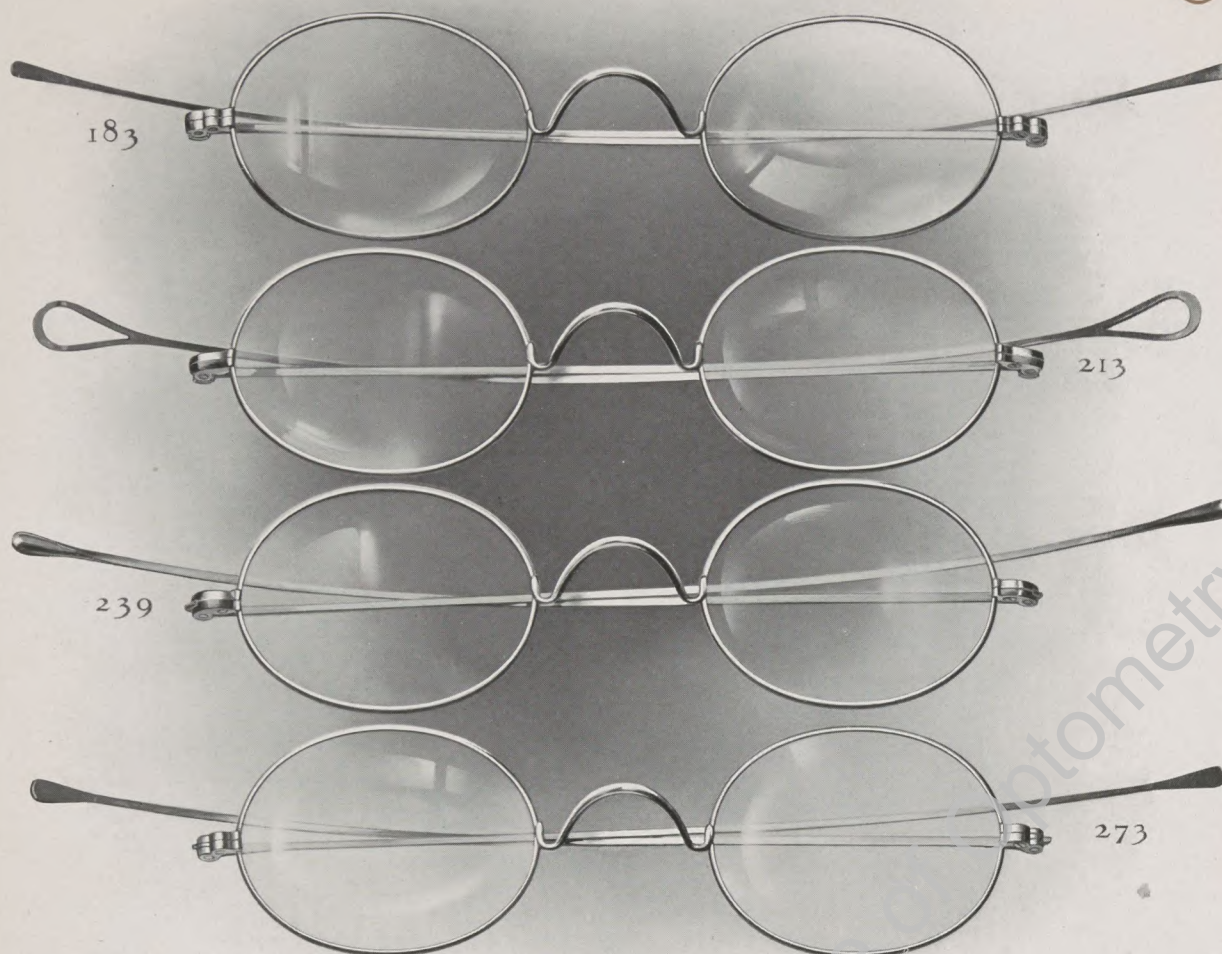


# STEEL SPECTACLE FRAMES

CATALOGUE NUMBER		DESCRIPTION
Cap Joint	Solid Joint	Flat Straight Temple, "C" Bridge
	10	Ordinary Quality, Oval Wire Bridge, Special End Piece
30	-	Fair Quality, Rounded End Piece
50	-	Medium Quality, Flat Back End Piece
60	-	Medium Quality, Rounded End Piece
70	-	Good Quality, Slight Bevel on End Piece
80	-	Good Quality, Fancy End Piece
150	-	Fine Quality, Small Rounded End Piece
160	-	Fine Quality, Small Oval Back End Piece
240	-	Extra Fine Quality, Small Rounded End Piece, Good Weight

No. 10 is supplied in AOCo BC Assortment of "C" Bridges; all other styles in Regular AOCo Assortment of "C" Bridges. See page 37. For style of Special End Piece supplied on No. 10, see illustration of No. 308, page 98.



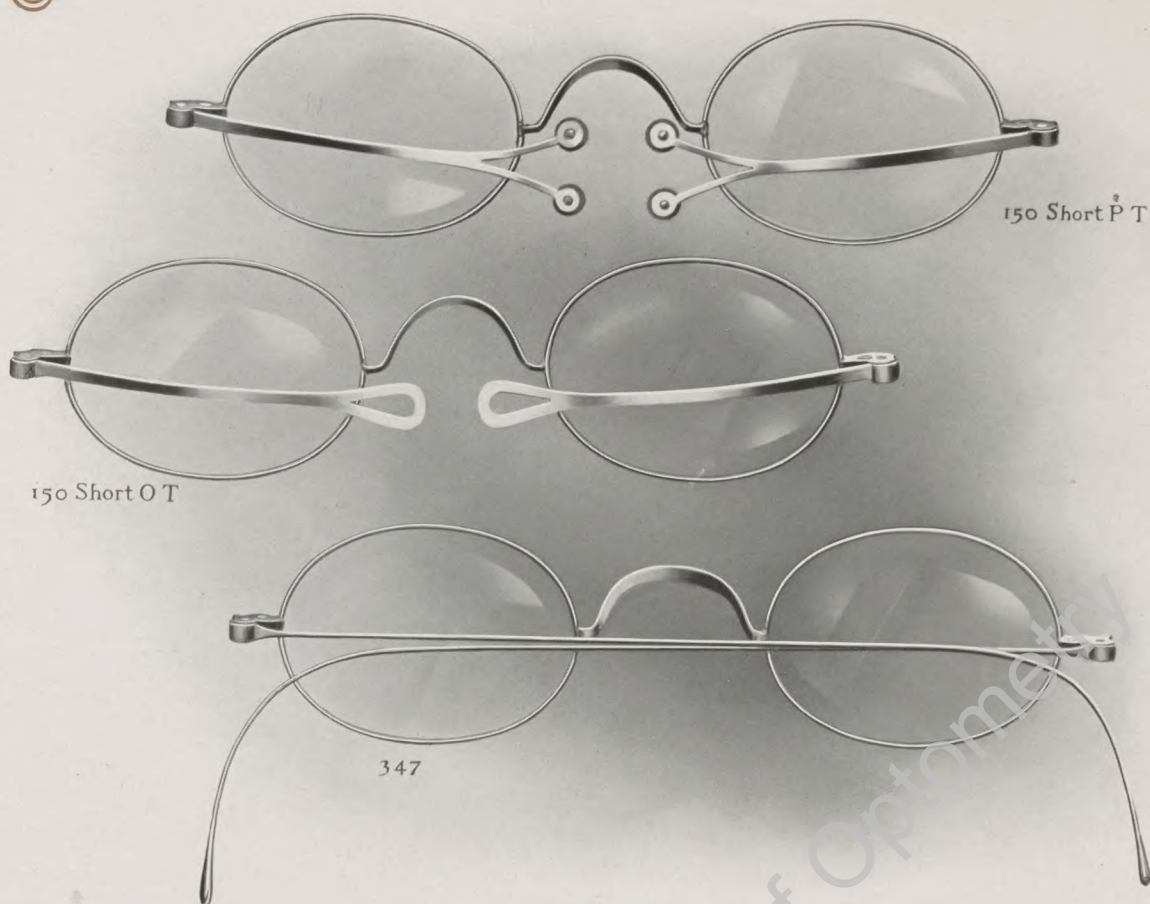


## STEEL SPECTACLE FRAMES

CATALOGUE NUMBER			DESCRIPTION
Cap Joint	Solid Joint	Swaged Cap Joint	Half-round Straight Temple, "C" Bridge
53	-	-	Medium Quality, Flat Back End Piece
63	-	-	Medium Quality, Rounded End Piece
	68	-	Medium Quality, Ogee End Piece
73	-	-	Good Quality, Slight Bevel on End Piece
	78	-	Good Quality, Ogee End Piece
103	-	113	Good Quality, Ball End Piece
	-	263	Good Quality, Large Open Tip, English Style, Beveled End Piece
153	-	-	Fine Quality, Small Rounded End Piece
	158	-	Fine Quality, Ogee End Piece
	273	-	Extra Quality, Ogee End Piece
183	-	-	Extra Fine Quality, light, as illustrated
	-	213	Extra Fine Quality, Large Open Bent Tip, English Style, Beveled End Piece
223	-	233	Extra Fine Quality, Long Fancy End Piece
	239	-	Extra Fine Quality, Beveled End Piece
	-	253	Extra Fine Quality, Open Tip, heavy

Above Frames regularly supplied with AOCo Assortment of "C" Bridges. See page 37.  
No. 273 also furnished with Beveled End Piece when so ordered.

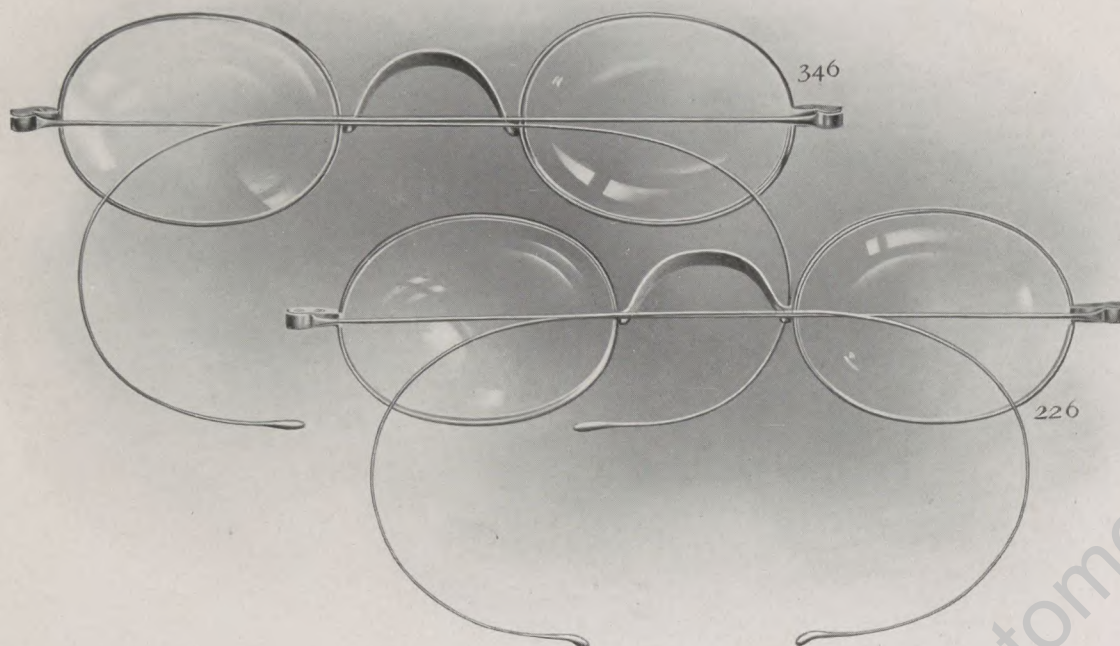




## STEEL SPECTACLE FRAMES

CATALOGUE NUMBER				DESCRIPTION				
Short Temple, "C" Bridge								
Cap Joint, Padded Tip				Cap Joint, Open Tip				
70	Short P.T.	-	-	70	Short O.T.	-	-	Good Quality, Slight Bevel on End Piece
80	Short P.T.	-	-	80	Short O.T.	-	-	Good Quality, Fancy End Piece
150	Short P.T.	-	-	150	Short O.T.	-	-	Fine Quality, Small Rounded End Piece
Half-riding Temple, "SS" Bridge								
Rounded End Piece Cap Joint				Ogee End Piece Solid Joint				
317	-	-	-	317.8	-	-	-	Fair Quality
327	-	-	-	327.8	-	-	-	Medium Quality
337	-	-	-	337.8	-	-	-	Good Quality
Ogee End Piece Cap Joint								
347	-	-	-	347.8	-	-	-	Fine Quality
347 Ex	-	-	-	347.8 Ex	-	-	-	Extra Fine Quality
Half-riding Temple, "C" Bridge								
Rounded End Piece Cap Joint				Ogee End Piece Solid Joint				
57	-	-	-	-	-	-	-	Medium Quality
67	-	-	-	-	-	-	-	Medium Quality
157	-	-	-	-	-	-	-	Fine Quality
167	-	-	-	277	-	-	-	Fine Quality



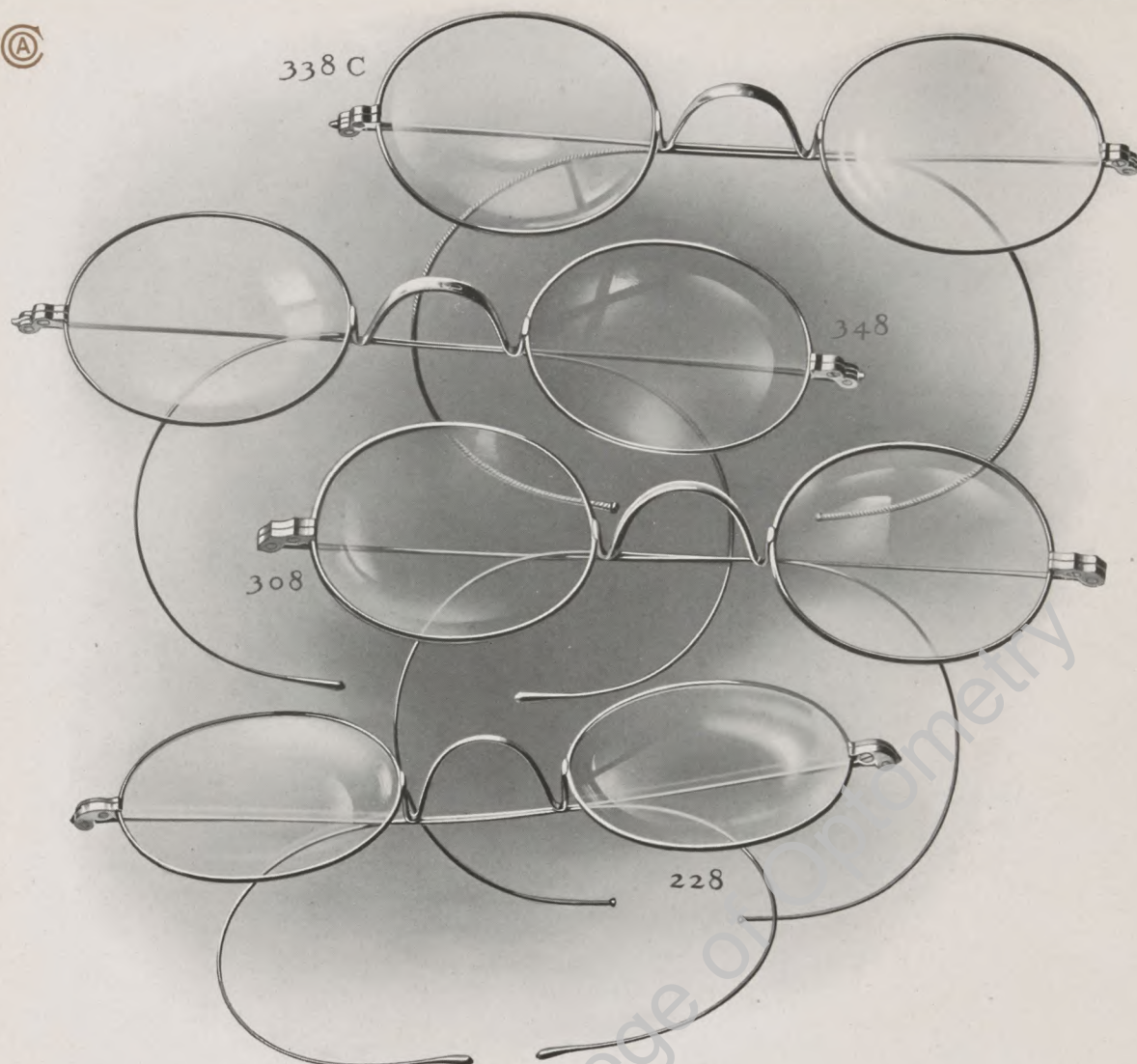


## STEEL SPECTACLE FRAMES

CATALOGUE NUMBER								DESCRIPTION
Riding Temple, "SS" Bridge								
Cap Joint								
316	-	-	-	-	-	-	-	Fair Quality, Rounded End Piece
326	-	-	-	-	-	-	-	Medium Quality, Rounded End Piece
336	-	-	-	-	-	-	-	Good Quality, Rounded End Piece
346	-	-	-	-	-	-	-	Fine Quality, Ogee End Piece
346 Ex	-	-	-	-	-	-	-	Extra Fine Quality, Bent Tip, Ogee End Piece
226	-	-	-	-	-	-	-	Extra Fine Quality, Long Beveled End Piece, Bent Tip
236	-	-	-	-	-	-	-	Extra Fine Quality, Long Fancy End Piece, Bent Tip
Cable Temple, "SS" Bridge								
316 C	-	-	-	-	-	-	-	Fair Quality, Rounded End Piece
326 C	-	-	-	-	-	-	-	Medium Quality, Rounded End Piece
336 C	-	-	-	-	-	-	-	Good Quality, Rounded End Piece
346 C	-	-	-	-	-	-	-	Fine Quality, Ogee End Piece
346 Ex C	-	-	-	-	-	-	-	Extra Fine Quality, Bent Tip, Ogee End Piece
356 C	-	-	-	-	-	-	-	Extra Fine Quality, Long Fancy End Piece, European Style
226 C	-	-	-	-	-	-	-	Extra Fine Quality, Long Beveled End Piece, Bent Tip
236 C	-	-	-	-	-	-	-	Extra Fine Quality, Long Fancy End Piece, Bent Tip

No. 326 C may be furnished with No. 263 style End Piece when so ordered. See page 95.



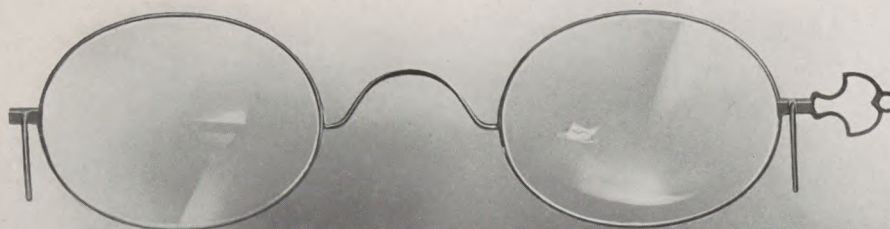


## STEEL SPECTACLE FRAMES

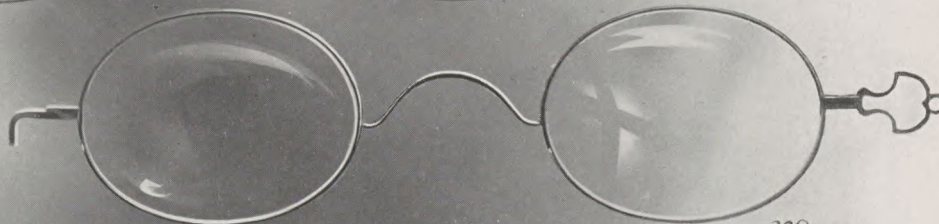
CATALOGUE NUMBER						DESCRIPTION
Solid Joint						Riding Temple, "SS" Bridge
308	-	-	-	-	-	Ordinary Quality, Oval Wire Bridge, Special End Piece
318	-	-	-	-	-	Fair Quality, Ogee End Piece
328	-	-	-	-	-	Medium Quality, Ogee End Piece
338	-	-	-	-	-	Good Quality, Ogee End Piece
348	-	-	-	-	-	Fine Quality, Ogee End Piece
358	-	-	-	-	-	Fine Quality, Beveled End Piece, Bent Tip
348 Ex	-	-	-	-	-	Extra Fine Quality, Ogee End Piece, Bent Tip
228	-	-	-	-	-	Extra Fine Quality, Beveled End Piece, Bent Tip
						Cable Temple, "SS" Bridge
308 C	-	-	-	-	-	Ordinary Quality, Oval Wire Bridge, Special End Piece
318 C	-	-	-	-	-	Fair Quality, Ogee End Piece
328 C	-	-	-	-	-	Medium Quality, Ogee End Piece
338 C	-	-	-	-	-	Good Quality, Ogee End Piece
348 C	-	-	-	-	-	Fine Quality, Ogee End Piece
358 C	-	-	-	-	-	Fine Quality, Beveled End Piece
348 Ex C	-	-	-	-	-	Extra Fine Quality, Ogee End Piece
228 C	-	-	-	-	-	Extra Fine Quality, Beveled End Piece

Nos. 308 and 308 C regularly supplied with AOC Co B Assortment of "SS" Bridges. See page 37.

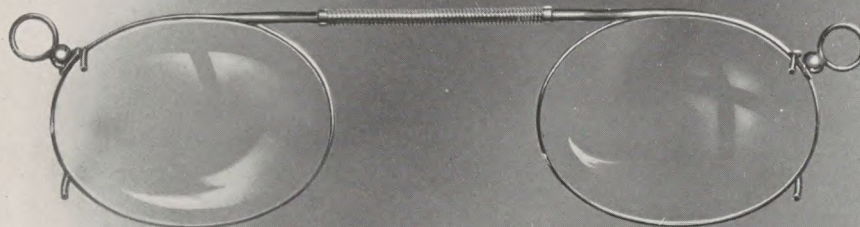




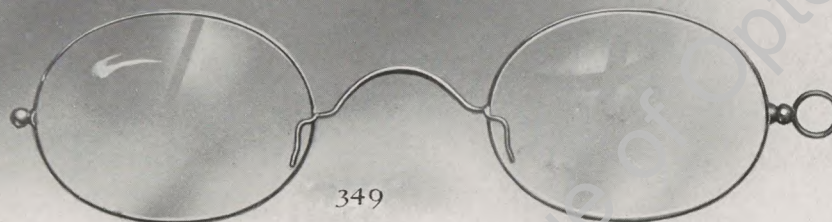
319



329



339



349

## STEEL GRAB FRONT FRAMES

CATALOGUE NUMBER				DESCRIPTION			
Oval Wire Bridge		Oval Wire Bridge		Rigid Bar Spring		"AA" Bar Spring	
319	-	329	-	339	-	339 AA	Medium

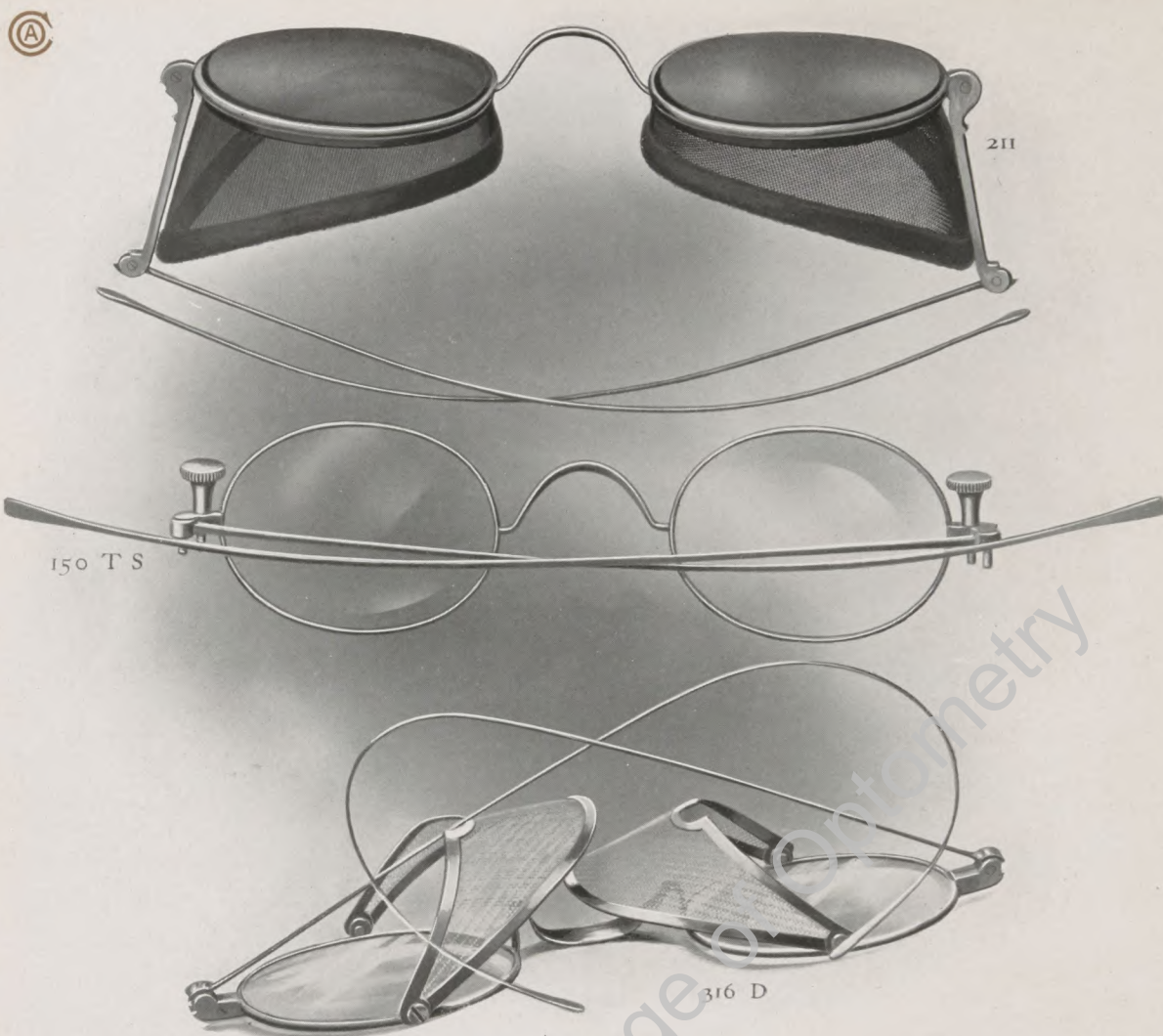
## STEEL MEDIO GRAB FRONT FRAMES.—PATENTED

CATALOGUE NUMBER				DESCRIPTION			
For "SS" Bridge		For "C" Bridge		Round Wire Bridge			
349	Medio	359	Medio	-	-	-	Medium

No. 329 style, sometimes called Grab Back.

No. 319 Eyes only, with two Hooks on each eye supplied when so ordered.





STEEL SPECTACLE FRAMES

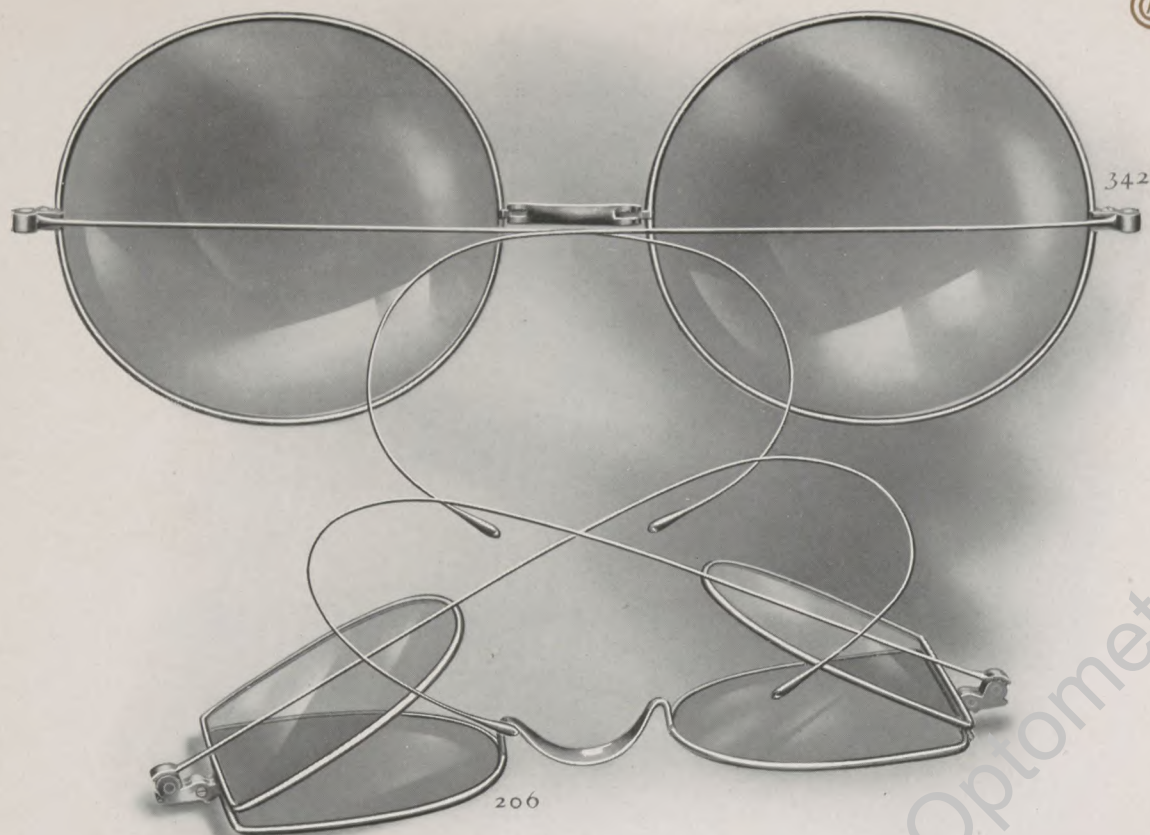
CATALOGUE NUMBER	DESCRIPTION
Cap Joint	
150 T.S.	Exercise Prism Frame, with Thumb Screw

STEEL DRIVING SPECTACLE FRAMES

CATALOGUE NUMBER	DESCRIPTION
Cap Joint	Straight Temple
Solid Joint	
211	*Blue or Nickel-plated Screen Fine Quality, Hoop Bridge
	Riding Temple
211 R	Fine Quality, Hoop Bridge
316 D	Fair Quality, Folding Screen
	Cable Temple
211 R.C.	Fine Quality, Hoop Bridge
316 D.C.	Fair Quality, Folding Screen

For Goggles, see Automobile Goggle Section.  
\*Supplied Nickel-plated unless otherwise ordered.





## STEEL DRIVING SPECTACLE FRAMES

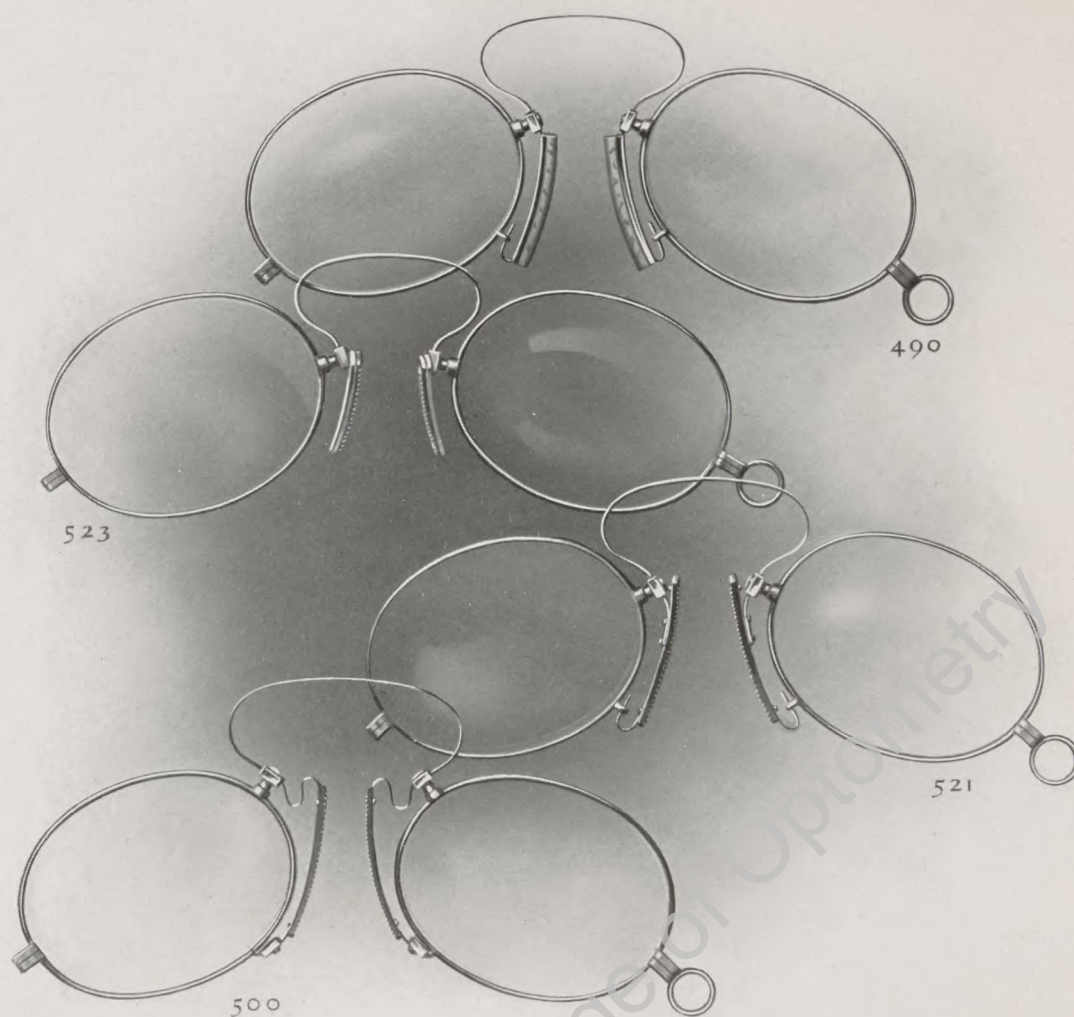
CATALOGUE NUMBER	DESCRIPTION
Cap Joint	Riding Temple
342 - - - - -	Jointed Bridge, Eye, 59.5 x 54.7 mm. Fine Quality
342 C - - - - -	Cable Temple Fine Quality

## STEEL SPECTACLE FRAMES — DOUBLE EYE

CATALOGUE NUMBER	DESCRIPTION
Horseshoe Cap Joint	Straight Temple
200 - - - - -	Oval Cap Joint
206 - - - - -	210 - - - - - Fine Quality, "C" Bridge
206 C - - - - -	216 - - - - - Fine Quality, "SS" Bridge
	Cable Temple
	216 C - - - - - Fine Quality, "SS" Bridge

Double Eye Horseshoe Frames furnished in H, HH, or HHH Eye as ordered. See page 29.  
Above styles, Nos. 342 and 342 C, supplied with White, Smoke or Amber Coquille Lenses as desired.





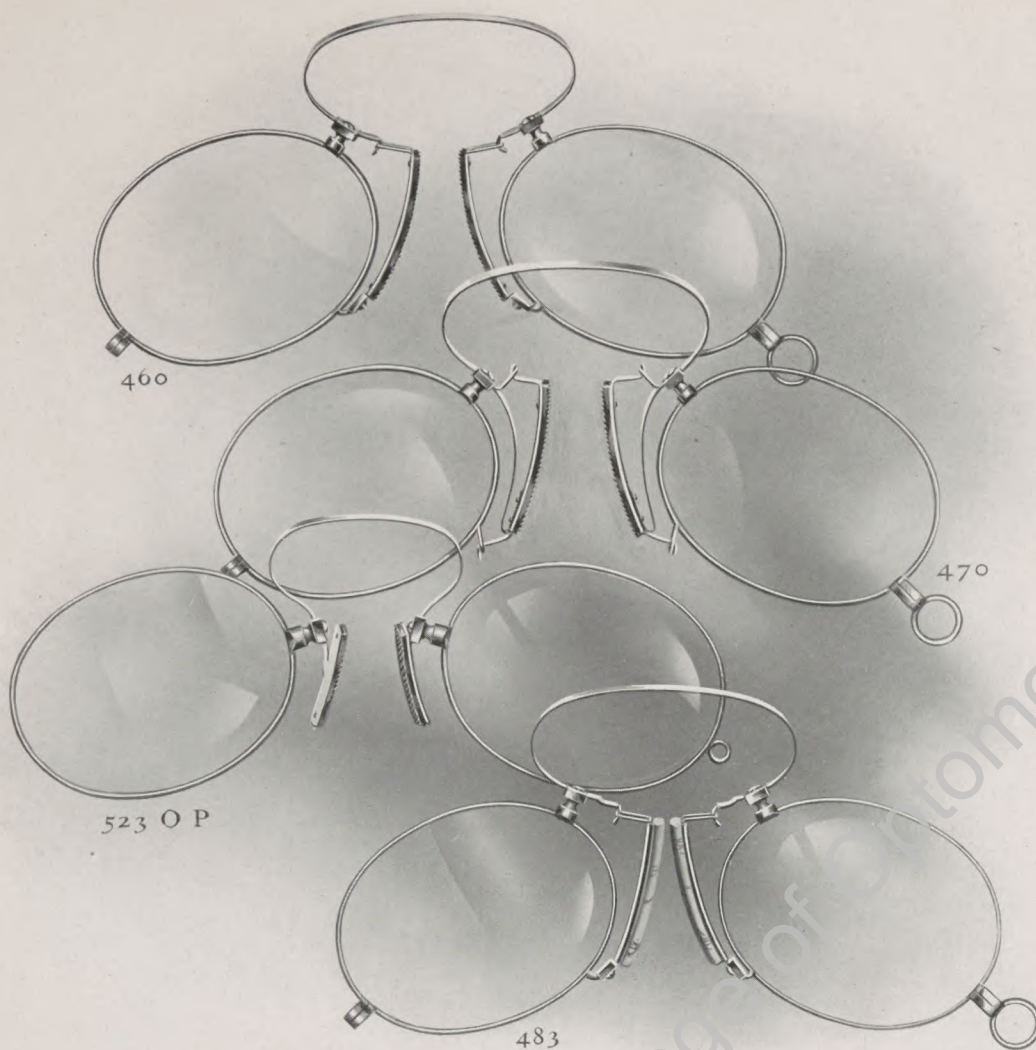
## STEEL EYEGLASS FRAMES

CATALOGUE NUMBER	DESCRIPTION	CATALOGUE NUMBER	DESCRIPTION
	Rigid Guard		Long Offset Guard
490½	- Medium Quality	491	- Good Quality
490	- Good Quality	521	- Fine Quality
520	- Fine Quality		Solid Adjustable Guard
526	- Fine Quality, Light	500	- Fine Quality
530	- Fine Quality, Light, Ball Handle		Long Rigid Guard
540	- Extra Fine Quality, Zylonite	420	- Ordinary Quality
	Offset Guard	430	- Fair Quality
493½	- Medium Quality		Miscellaneous Styles
493	- Good Quality	440	- Good Quality, Burbank, Zylonite
522	- Fine Quality, Spring Offset Guards	443	- Good Quality, Burbank, Offset, Zylonite
523	- Fine Quality	512	- Fine Quality, Adjustable Offset, Spring Top
		513	- Fine Quality, Flexible Offset
		527	- Fine Quality, Adjustable Offset *

Cork Guards supplied unless otherwise ordered, except on Nos. 440, 443 and 540 styles as noted above.  
 Above Frames, except Nos. 420, 430 and 530, regularly supplied with Ring Handles.

\* See Material Section for style of Hanger No. 15 G. H., used on No. 527 Frame.





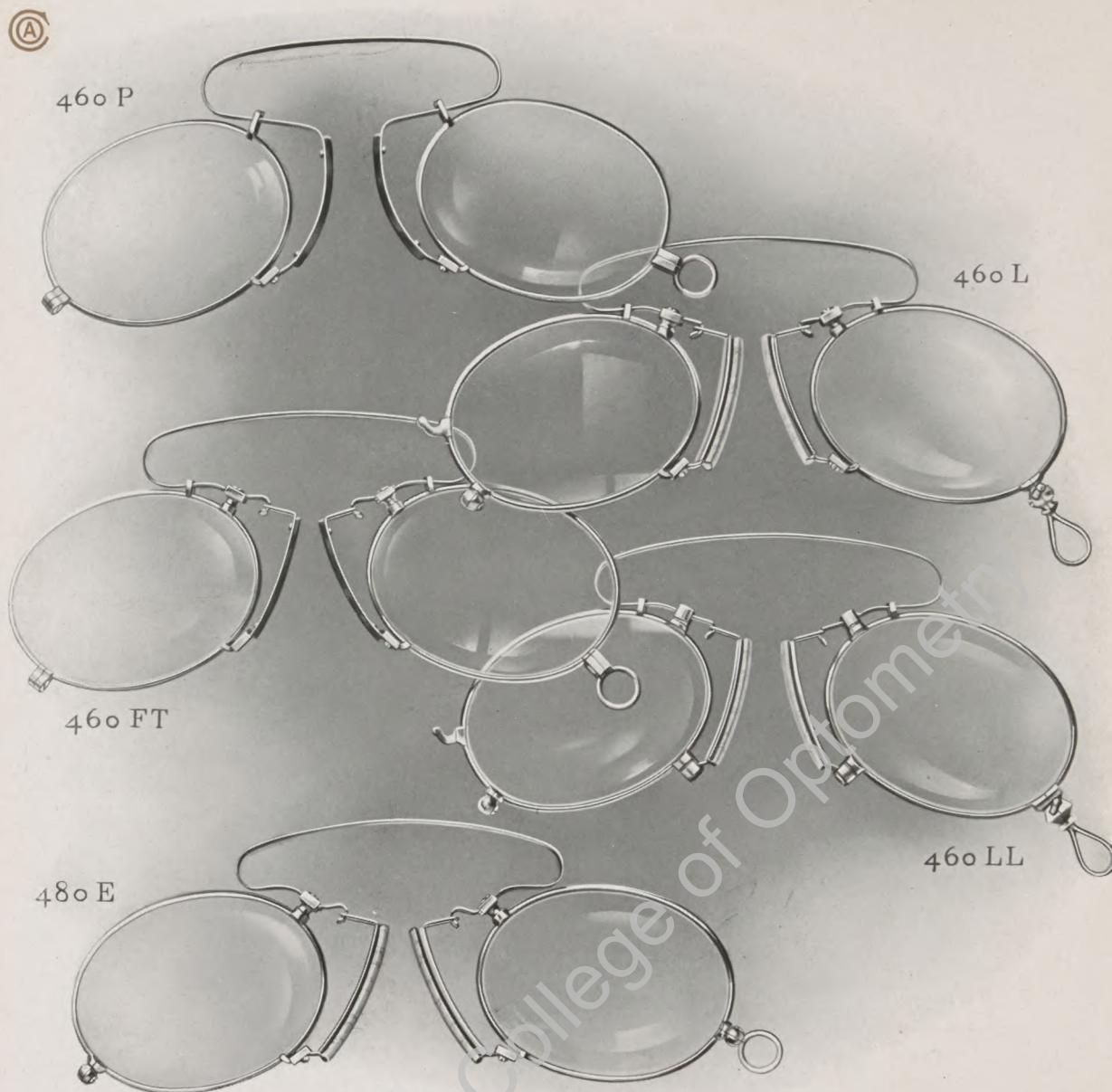
## STEEL EYEGGLASS FRAMES

CATALOGUE NUMBER	DESCRIPTION	CATALOGUE NUMBER	DESCRIPTION
	Adjustable Guard		Double Adjustable Offset Guard
450 - -	Good Quality, Long Guards	473 - -	Good Quality
460½ - -	Medium Quality		Open Post, Ring for Cord
460 - -	Good Quality	520 O.P. - -	Fine Quality, Rigid
480 - -	Fine Quality	523 O.P. - -	Fine Quality, Offset
481 - -	Fine Quality, Long Guards, for narrow P. D.	480 O.P. - -	Fine Quality, Adjustable
	Adjustable Offset Guard	483 O.P. - -	Fine Quality, Adjustable Offset
453 - -	Good Quality, Long Guards		Double Post, Ring for Cord
463½ - -	Medium Quality	520 D.P. - -	Fine Quality, Rigid
463 - -	Good Quality	523 D.P. - -	Fine Quality, Offset
483 - -	Fine Quality	480 D.P. - -	Fine Quality, Adjustable
	Double Adjustable Guard	483 D.P. - -	Fine Quality, Adjustable Offset
470 - -	Good Quality		

Cork Guards supplied unless otherwise ordered.

Ring Handles supplied on all above Frames except O.P. and D.P. styles.



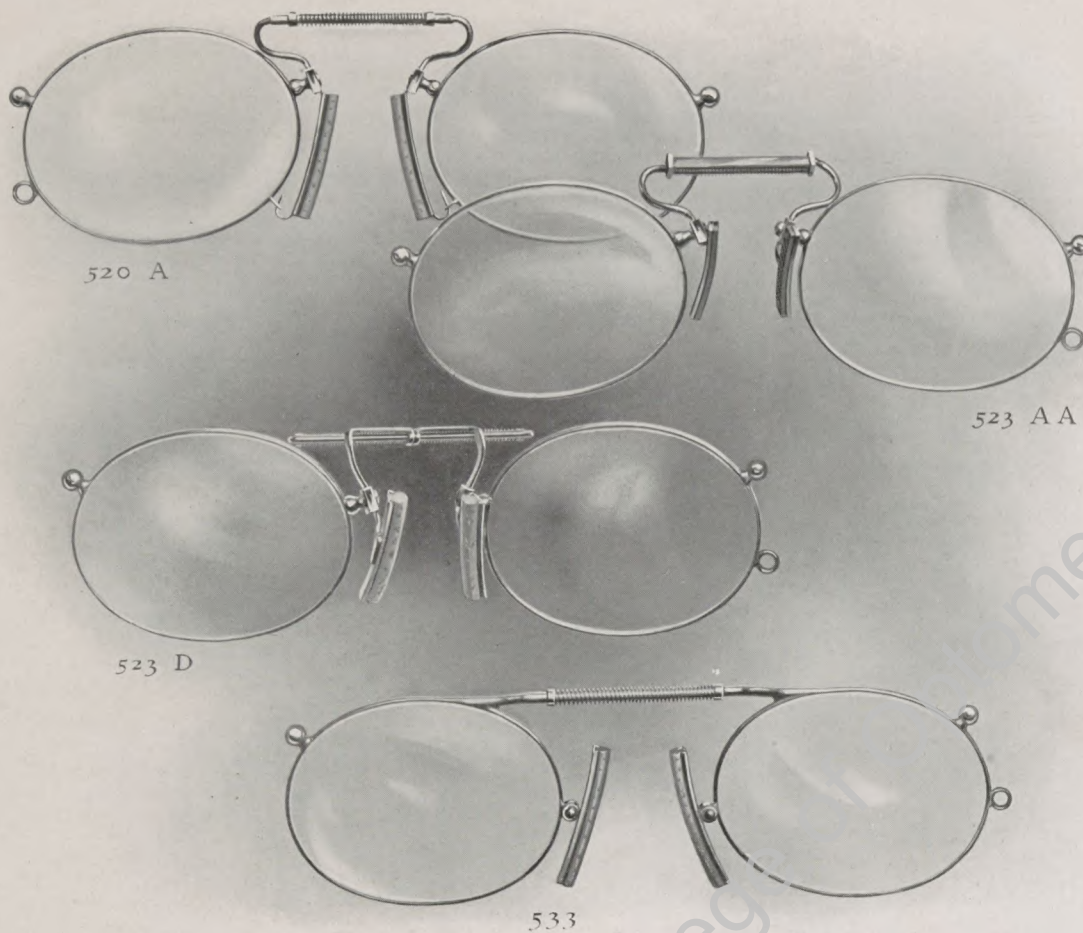


STEEL EYEGLASS FRAMES. — EUROPEAN STYLES

CATALOGUE NUMBER				DESCRIPTION
French Style 70 mm. tied spring	English Style 63 mm. tied spring	English Style 89 mm. tied spring	Perfection Style 140 mm. spring	
460 F.T. -	460 E -	460 L -	460 P -	Adjustable Guard
480 F.T. -	480 E -	460 LL -	480 P -	Good Quality
				Fine Quality
463 F.T. -	463 E -	463 L -	-	Adjustable Offset Guard
483 F.T. -	483 E -	463 LL -	-	Good Quality
				Fine Quality

Nos. 460 L, 463 L, 460 LL, and 463 LL regularly supplied with Catch and Pin.



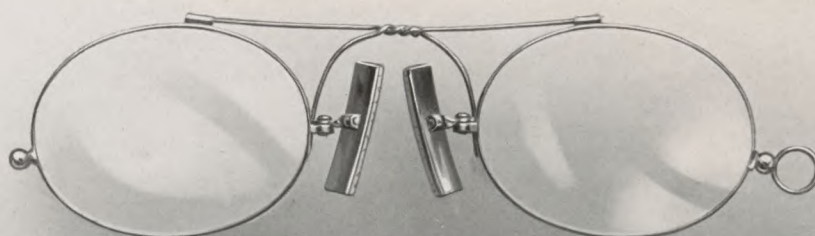


## STEEL BAR SPRING EYEGGLASS FRAMES

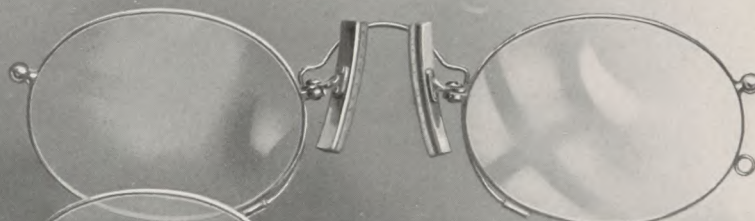
CATALOGUE NUMBER										DESCRIPTION	
"A"		"AA"		"D"		"F"		Ring for Cord			
520 A	- -	520 AA	- -	520 D	- -	520 F	- -	-	Rigid		
523 A	- -	523 AA	- -	523 D	- -	523 F	- -	-	Offset		
"Astig" or Rigid Bar Spring, Ring for Cord											
Round Bar											
533	-	-	-	-	-	-	-	-	-	Rocking Offset	
543	-	-	-	-	-	-	-	-	-	Offset	

Cork Guards supplied unless otherwise ordered.





555 R



557 S



557 R



552

## STEEL REVLUC EYEGLASS FRAMES

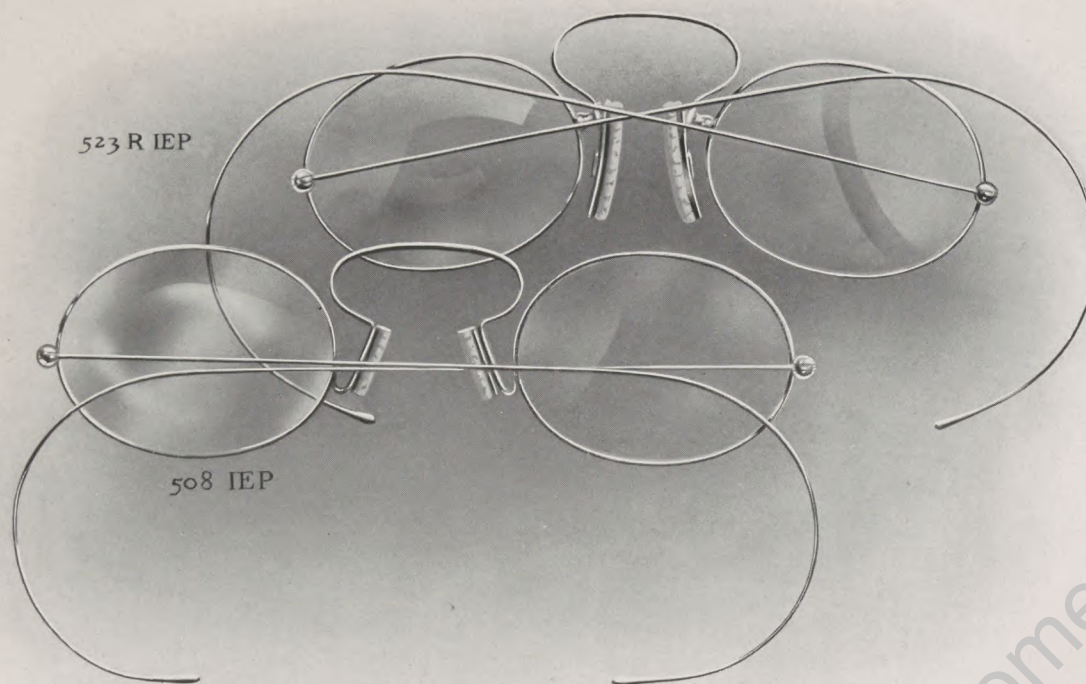
CATALOGUE NUMBER										DESCRIPTION
Interchangeable Offset					Rocking					Medium Medium Medium
550	-	-	-	-	555 R	-	-	-	-	
551	-	-	-	-	-	-	-	-	-	
552	-	-	-	-	557 R	-	-	-	-	
					Solid					
					555 S					
					557 S					

## STEEL EYEGLASS FRAMES — GRAB TEMPLE

CATALOGUE NUMBER										DESCRIPTION
520	G.T.	-	-	-	-	-	-	-	-	Rigid
523	G.T.	-	-	-	-	-	-	-	-	Offset
500	G.T.	-	-	-	-	-	-	-	-	Solid Adjustable
480	G.T.	-	-	-	-	-	-	-	-	Adjustable
483	G.T.	-	-	-	-	-	-	-	-	Adjustable Offset

No. 551 has Spring style of No. 555 without Cross Bar.  
 Grab Temples regularly made with Zylonite Pads.  
 Cork Guards supplied unless otherwise ordered.  
 See illustration of Grab Temple Frames, page 81.





## STEEL COMBINATION AND SPECTACLETTE FRAMES

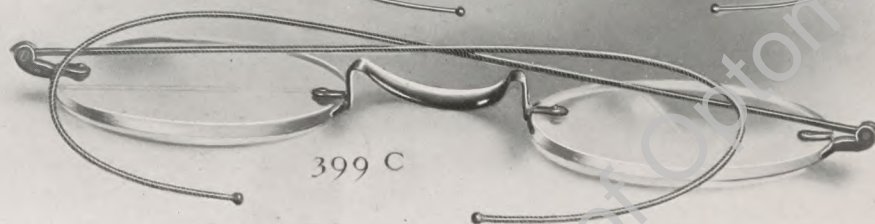
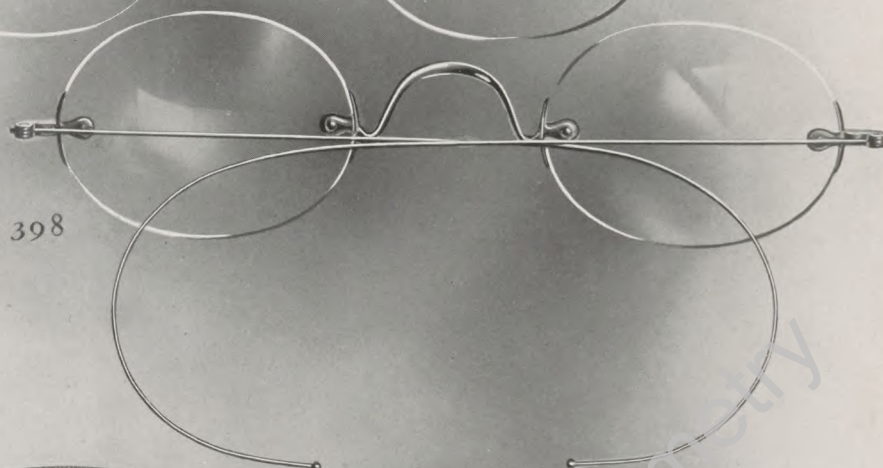
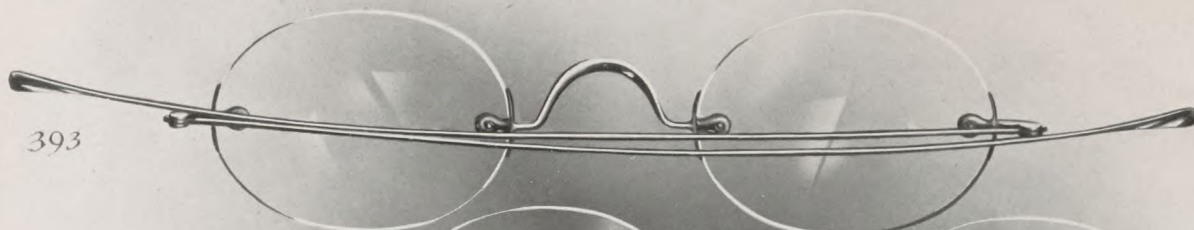
CATALOGUE NUMBER	DESCRIPTION
Straight Temple	
Invisible End Piece Solid Joint 502 I.E.P. - - - - -	Spectaclette, Fine Quality
Riding Temple	
523 R. I.E.P. - - - - -	Combination, Offset, Fine Quality
480 R. I.E.P. - - - - -	Combination, Adjustable, Fine Quality
508 I.E.P. - - - - -	Spectaclette, Fine Quality
Cable Temple	
523 R.C. I.E.P. - - - - -	Combination, Offset, Fine Quality
480 R.C. I.E.P. - - - - -	Combination, Adjustable, Fine Quality
508 C. I.E.P. - - - - -	Spectaclette, Fine Quality

## STEEL SPECTACLETTE WITHOUT TEMPLES

CATALOGUE NUMBER	DESCRIPTION
534 - - - - -	Adjustable Spring Guard
539 - - - - -	Adjustable Guard

Cork Guards supplied unless otherwise ordered.  
Spectaclette Frames Nos. 502 IEP, 508 IEP and 508 C IEP supplied with Sanitary Guards when so ordered.  
See No. 1739, page 80, for illustration style of No. 539.





## STEEL SPECTACLE MOUNTINGS

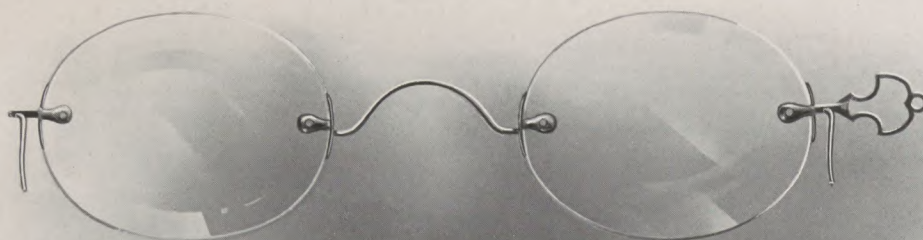
CATALOGUE NUMBER		DESCRIPTION
Straight Temple, "C" Bridge		
Cap Joint	Solid Joint	
	393 - - - -	Good Quality, Half-round Temple, Rounded End Piece
Riding Temple, "SS" Bridge		
	380 - - - -	Ordinary Quality, Rounded End Piece, Flat Strap
	388 - - - -	Good Quality, Ogee End Piece
396 - - - -	398 - - - -	Good Quality, Rounded End Piece *
	399 - - - -	Fine Quality, Beveled End Piece
	399 I.E.P. - - - -	Fine Quality, Patented Invisible End Piece
Cable Temple, "SS" Bridge		
	388 C - - - -	Good Quality, Old Style End Piece
396 C - - - -	398 C - - - -	Good Quality, Rounded End Piece *
	399 C - - - -	Fine Quality, Beveled End Piece
	399 C I.E.P. - - - -	Fine Quality, Patented Invisible End Piece

No. 380 sold only when fitted with Lenses.

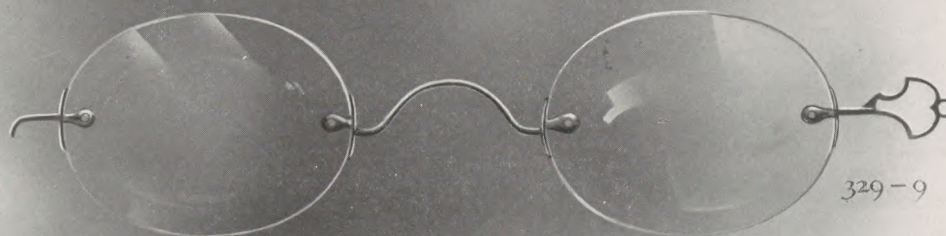
For Invisible End Piece, see page 86.

\* No. 396 has extra finish and Bent Tip Temples.

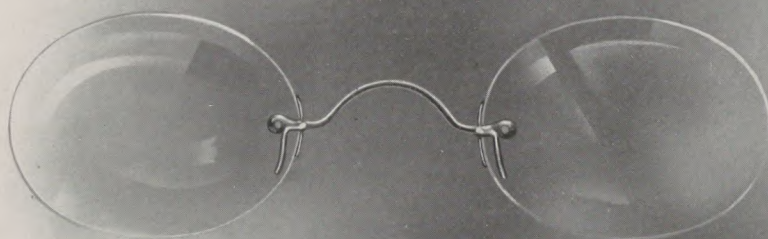




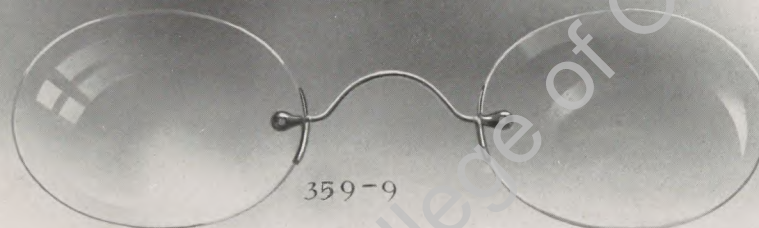
319-9



329-9



349-9



359-9

### STEEL GRAB FRONT MOUNTINGS

CATALOGUE NUMBER	DESCRIPTION
319-9 - - - 329-9 - - -	Oval Wire Bridge, with Handle and Hooks Medium

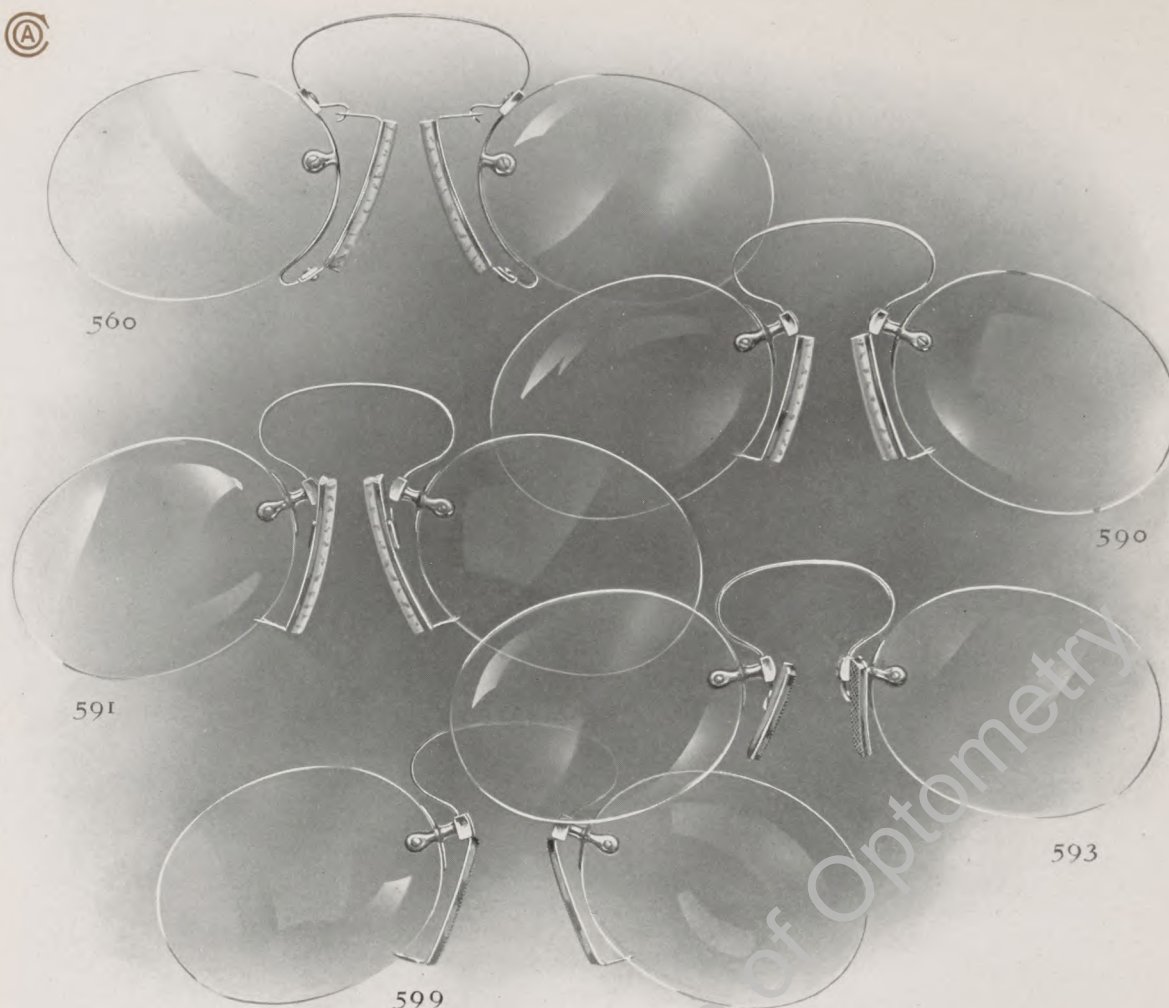
### STEEL MEDIO GRAB FRONT MOUNTINGS. — PATENTED

CATALOGUE NUMBER	DESCRIPTION
For "SS" Bridge - - - For "C" Bridge - - -	Round Wire Bridge, no Handle Medium
349-9 - - - 359-9 - - -	

No. 329.9 style, sometimes called Grab Back.



(A)



## STEEL EYEGLOSS MOUNTINGS

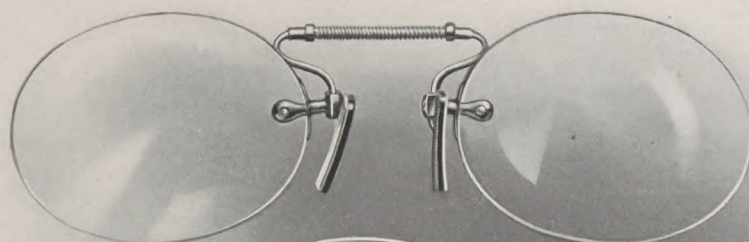
CATALOGUE NUMBER

DESCRIPTION

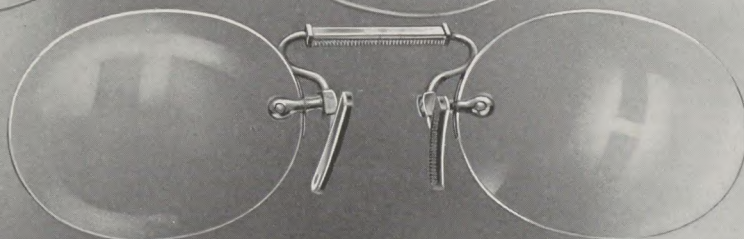
570	-	-	-	-	-	Rigid Guard
580	-	-	-	-	-	Ordinary Quality, Flat Strap
590	-	-	-	-	-	Good Quality, Flat Strap
599	-	-	-	-	-	Fine Quality
						Extra Fine Quality, Countersunk Stud Screw, Zylonite
573	-	-	-	-	-	Offset Guard
573 B.E.	-	-	-	-	-	Ordinary Quality, Flat Strap
583	-	-	-	-	-	Ordinary Quality, Flat Strap, Black Enamel Finish, Sanitary Guards
593	-	-	-	-	-	Good Quality, Flat Strap
594	-	-	-	-	-	Fine Quality
						Fine Quality, for narrow P. D. no Stud Post
591	-	-	-	-	-	Long Offset Guard
						Fine Quality
						Adjustable Guard
560	-	-	-	-	-	Fine Quality
						Adjustable Offset Guard
563	-	-	-	-	-	Fine Quality

Nos. 570 and 573 sold only when fitted with Lenses.  
Cork Guards supplied unless otherwise ordered, except Nos. 599 and 573 B.E.

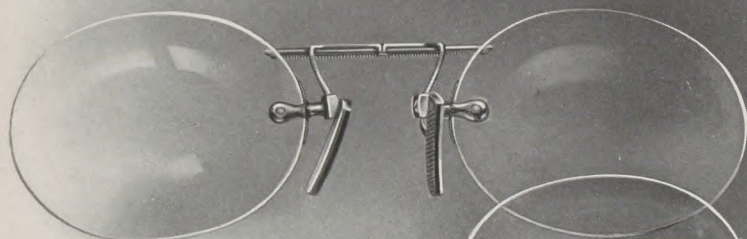




593 A



593 A A



593 D



597 R

## STEEL BAR SPRING EYEGGLASS MOUNTINGS

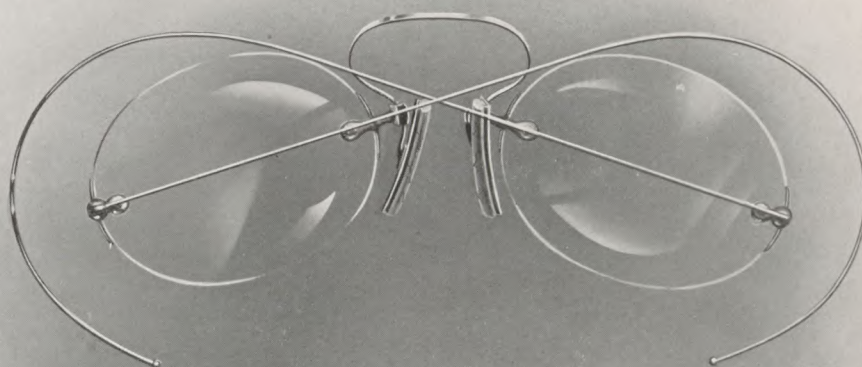
CATALOGUE NUMBER				DESCRIPTION			
"A"		"AA"		"D"		"F"	
590 A	-	590 AA	-	590 D	-	590 F	-
593 A	-	593 AA	-	593 D	-	593 F	-
							Rigid
							Offset

## STEEL REVLUC EYEGGLASS MOUNTINGS

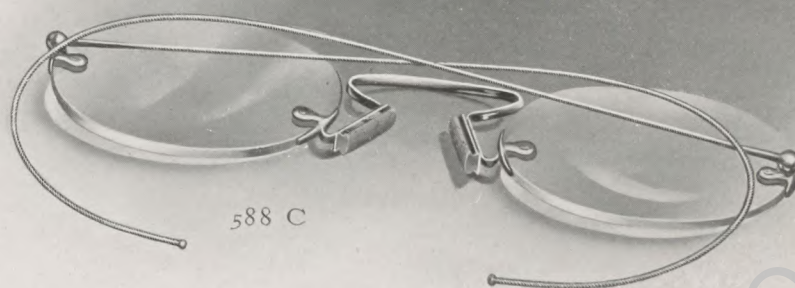
CATALOGUE NUMBER				DESCRIPTION			
Interchangeable Offset		Rocking		Solid			
592	-	597 R	-	597 S	-		
							Fine Quality

Cork Guards supplied unless otherwise ordered.





593 Riding



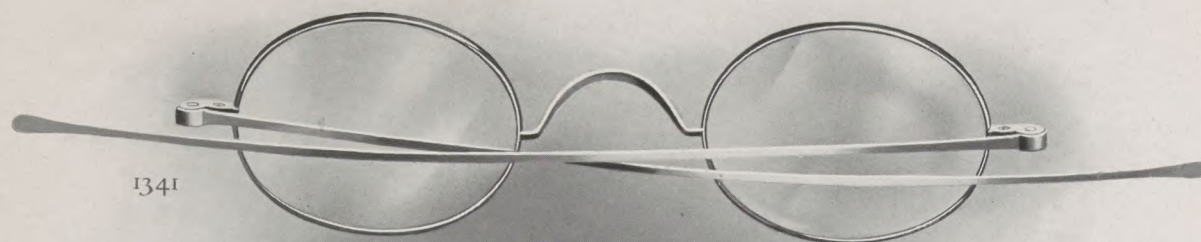
588 C

## STEEL COMBINATION AND SPECTACLETTE MOUNTINGS

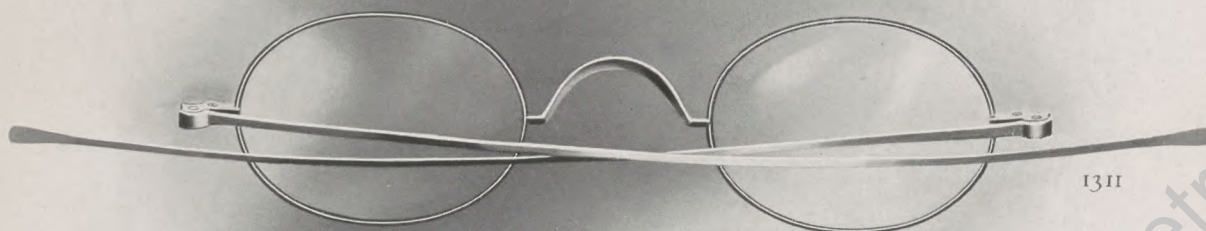
CATALOGUE NUMBER	DESCRIPTION
Riding Temple (No. 398)	
Patented Invisible End Piece	
Solid Joint	Fine Quality
590 Riding	Combination, Rigid
593 Riding	Combination, Offset
588	Spectaclette
Cable Temple (No. 398 C)	
590 Riding C	Combination, Rigid
593 Riding C	Combination, Offset
588 C	Spectaclette

Cork Guards supplied unless otherwise ordered.

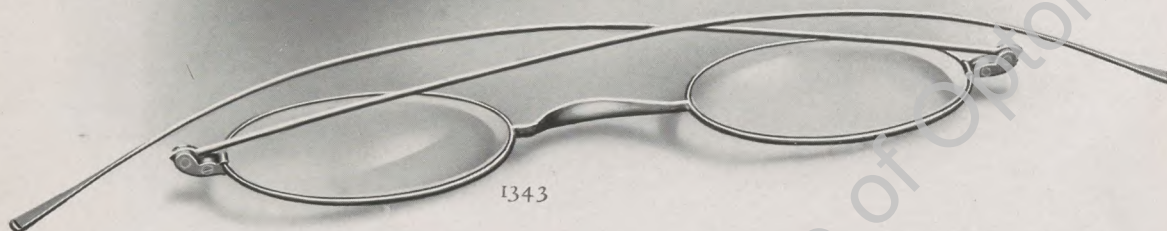




1341



1311



1343

## ALUMNICO SPECTACLE FRAMES

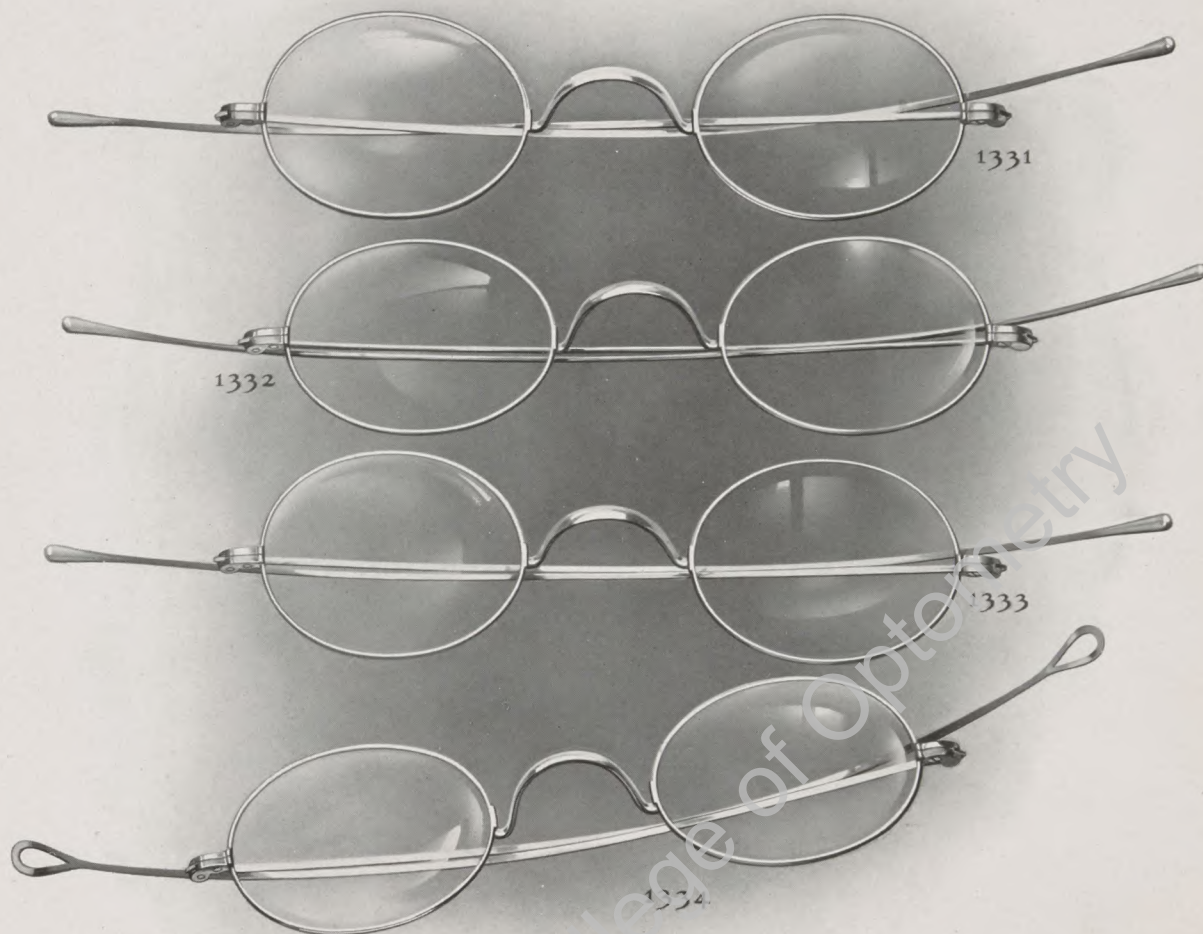
CATALOGUE NUMBER										DESCRIPTION	
Straight Temple, " C " Bridge											
Ogee End Piece Cap Joint		Beveled End Piece Solid Joint		Ogee End Piece Solid Joint							
1301	-	-	-	-	-	-	-	-	-	-	Medium, Flat Temple
1311	-	-	-	-	-	-	-	-	-	-	Heavy, Flat Temple
1302	-	-	-	-	-	-	-	-	-	-	Medium, Round Temple
1303	-	-	-	1323	-	-	1304	-	-	-	Medium, Half-round Temple
1313	-	-	-	-	-	-	-	-	-	-	Heavy, Half-round Temple
Beveled End Piece Solid Joint		Beveled End Piece Swaged Cap Joint							Fine Quality, Extra Finish		
			1341*	-	-	-	-	-	-	-	Medium, Flat Temple
1343	-	-	-	-	-	-	-	-	-	-	Medium, Half-round Temple
			1344*	-	-	-	-	-	-	-	Medium, Half-round Temple, Open Tip

See page 91 for description of metal ALUMNICO.

Above Frames supplied in regular AOCo Assortment of "C" Bridges. See page 37.

\*Nos. 1341 and 1344 are patented stiffened construction.

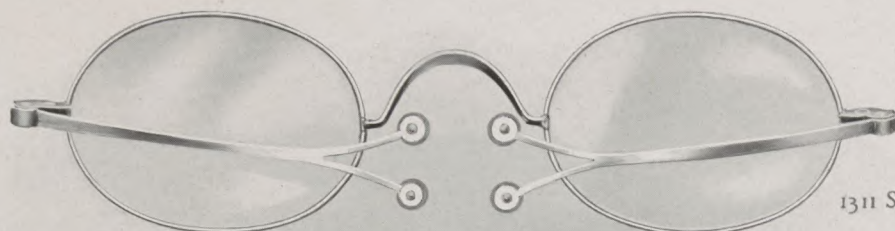




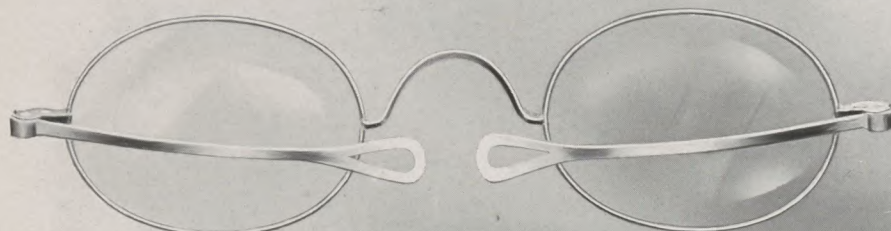
## ALUMNICO SPECTACLE FRAMES.—PATENTED STYLES

CATALOGUE NUMBER										DESCRIPTION
Straight Temple, "SS" Bridge										
Beveled End Piece										Medium Weight, Extra Finish, Stiffened
Solid Joint										
1331	-	-	-	-	-	-	-	-	-	Flat Temple
1332	-	-	-	-	-	-	-	-	-	Round Temple
1333	-	-	-	-	-	-	-	-	-	Half-round Temple
1334	-	-	-	-	-	-	-	-	-	Half-round Temple, Open Tip
1335	-	-	-	-	-	-	-	-	-	Half-round Temple, Flush Bridge

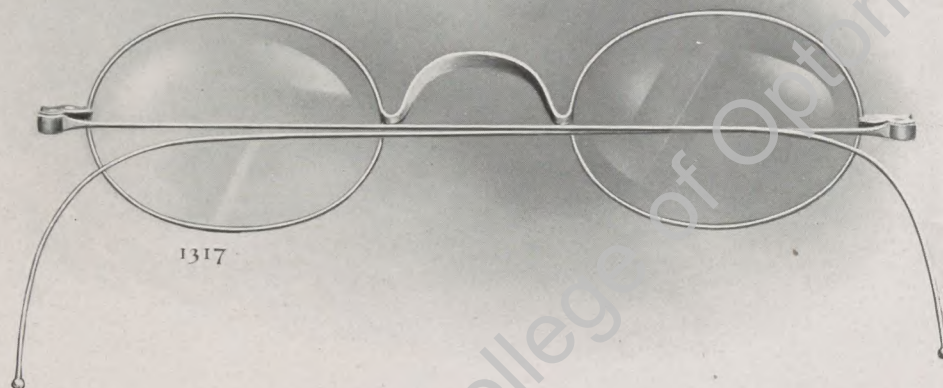




1311 Short P T



1311 Short O T

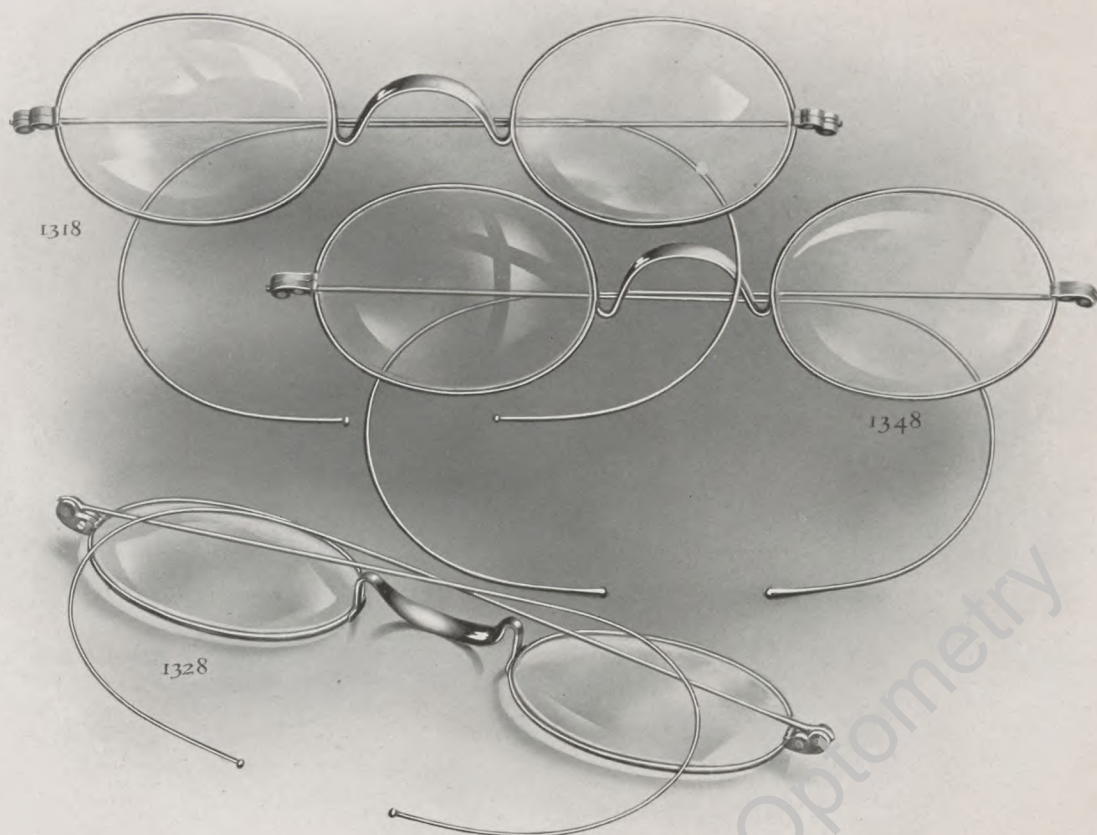


1317

## ALUMNICO SPECTACLE FRAMES

CATALOGUE NUMBER	DESCRIPTION
Short Temple, "C" Bridge	
Ogee End Piece	
Cap Joint	
1311 Short P.T.	Heavy, Padded Tip
1311 Short O.T.	Heavy, Open Tip
Half-riding Temple, "SS" Bridge	
1307	Light
1317	Medium

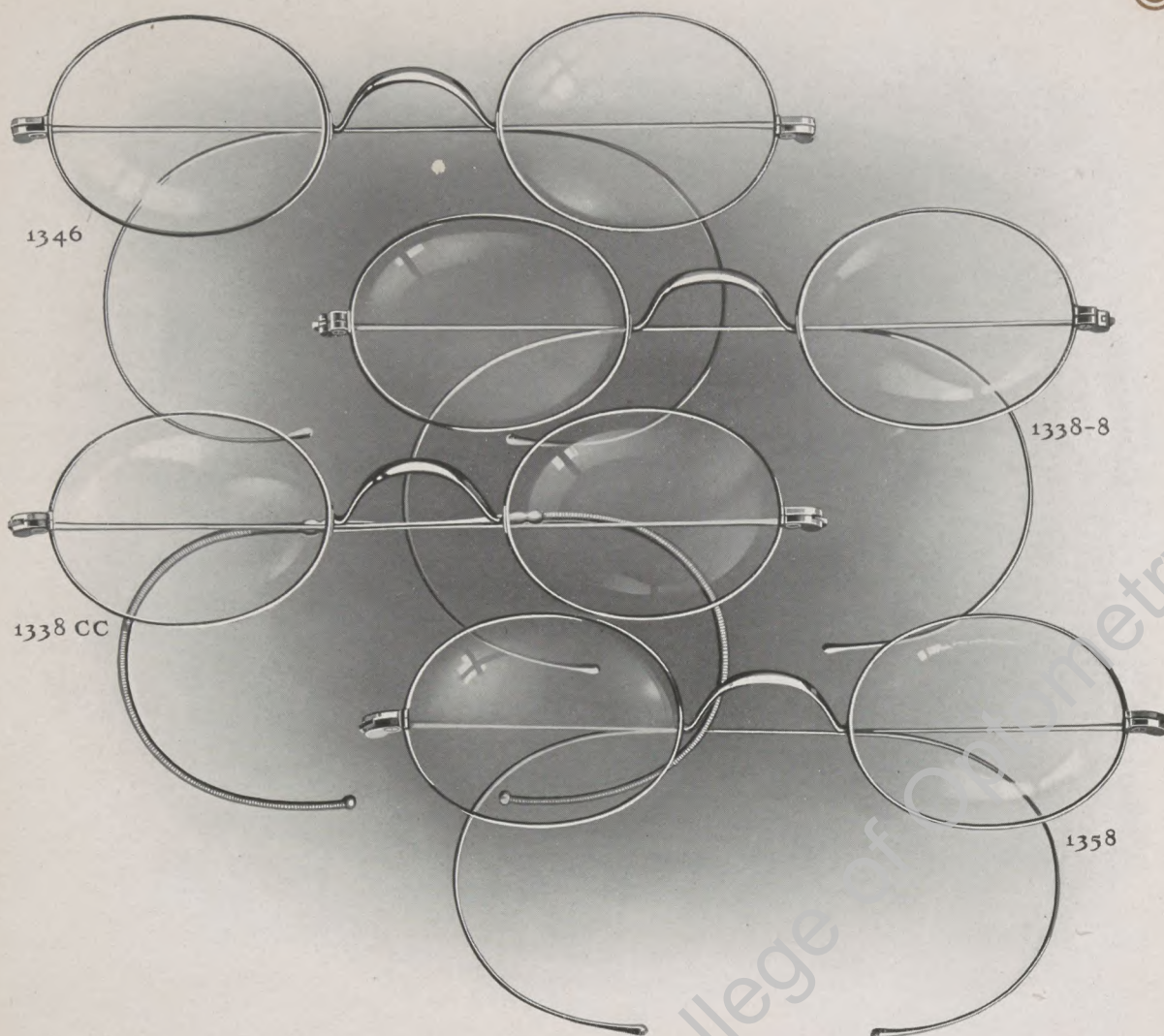




## ALUMNICO SPECTACLE FRAMES

CATALOGUE NUMBER										DESCRIPTION
Riding Temple										
Beveled End Piece Cap Joint	Ogee End Piece Cap Joint	Beveled End Piece Solid Joint	Ogee End Piece Solid Joint							
1326	1306 1316	1328	1308 1318							Light Medium
		1348								Fine Quality, Extra Finish
		1348 3/4								Medium, Pear Tip Extra Heavy
Cable Temple										
1326 C	1306 C 1316 C	1328 C	1308 C 1318 C							Light Medium
		1348 C								Fine Quality, Extra Finish
		1348 3/4 C								Medium Extra Heavy



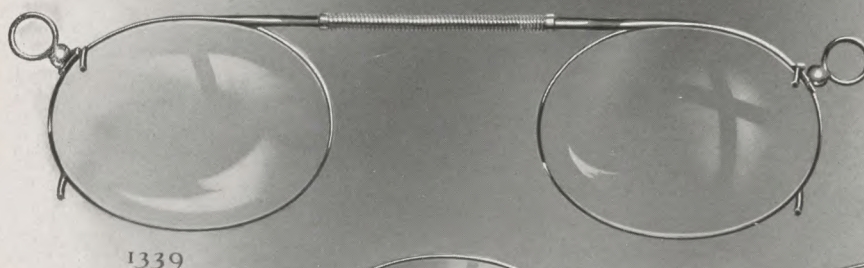
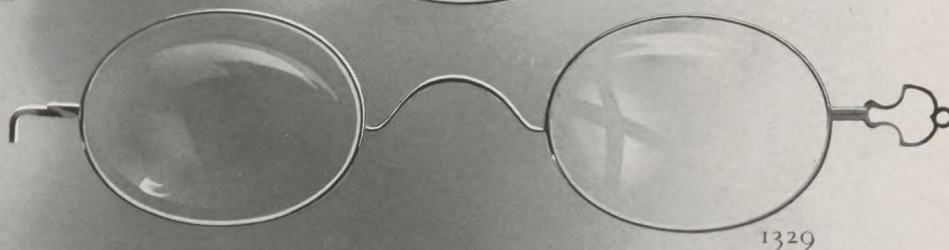
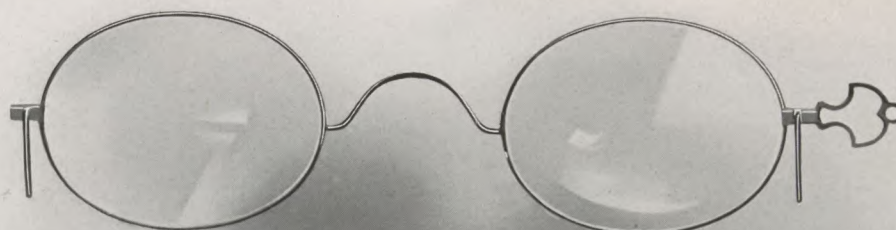


## ALUMNICO SPECTACLE FRAMES.—PATENTED STYLES

CATALOGUE NUMBER										DESCRIPTION		
Riding Temple												
Beveled End Piece Solid Joint				Ogee End Piece Solid Joint				Beveled End Piece Swaged Cap Joint				Extra Finish, Stiffened
1338 - - -				1338.8 - - -				1346 - - -				
1358 - - -				1358.8 - - -				1356 - - -				
Cable Temple												
1338 C - - -				1338.8 C - - -				1346 C - - -				
1358 C - - -				1358.8 C - - -				1356 C - - -				
											Medium, "T" Foot Bridge	
											Medium, Flush Bridge	

Nos. 1338 and 1358 regularly supplied with flat butt Pear Tip Temples.  
For Comfort Cable Temples, add CC to catalogue number, as No. 1338 CC.





## ALUMNICO GRAB FRONT FRAMES

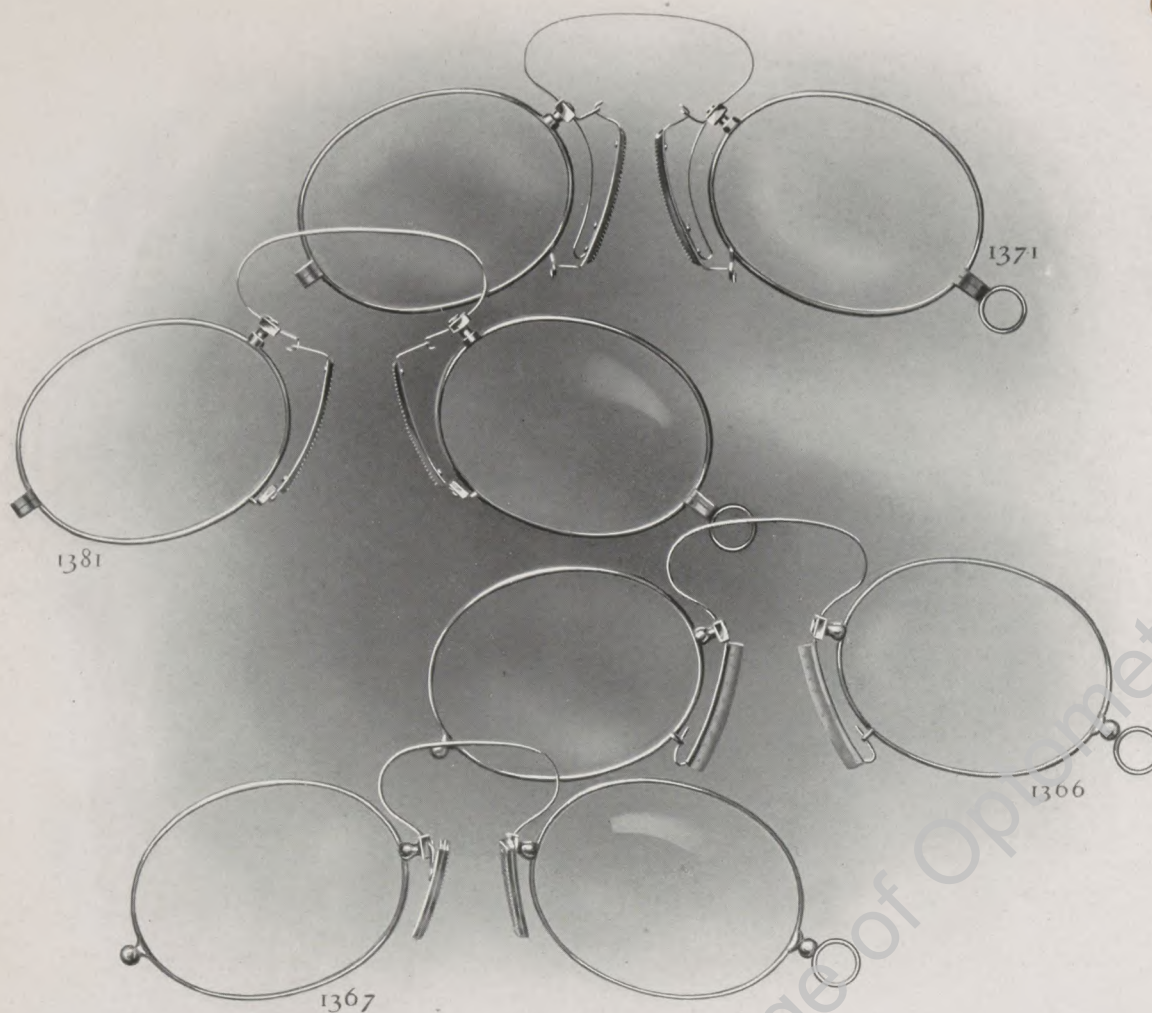
CATALOGUE NUMBER										DESCRIPTION
Oval Wire Bridge	Oval Wire Bridge	Rigid Bar Spring	"AA" Bar Spring							
1319	1329	1339	1339	AA					Medium	
1319 Ex.									Medium, Ball End Piece, Ball Pear Handle, Extra Finish	

ALUMNICO MEDIO GRAB FRONT FRAMES.—PATENTED

CATALOGUE NUMBER													DESCRIPTION	
For "SS" Bridge						For "C" Bridge						Round Wire Bridge		
1349	Medio	-	-	-	-	-	1359	Medio	-	-	-	-	-	Medium

No. 1319 Eyes only with two hooks on each eye, furnished when so ordered.  
No. 1320 style, sometimes called Grab Back.





## ALUMNICO EYEGLASS FRAMES

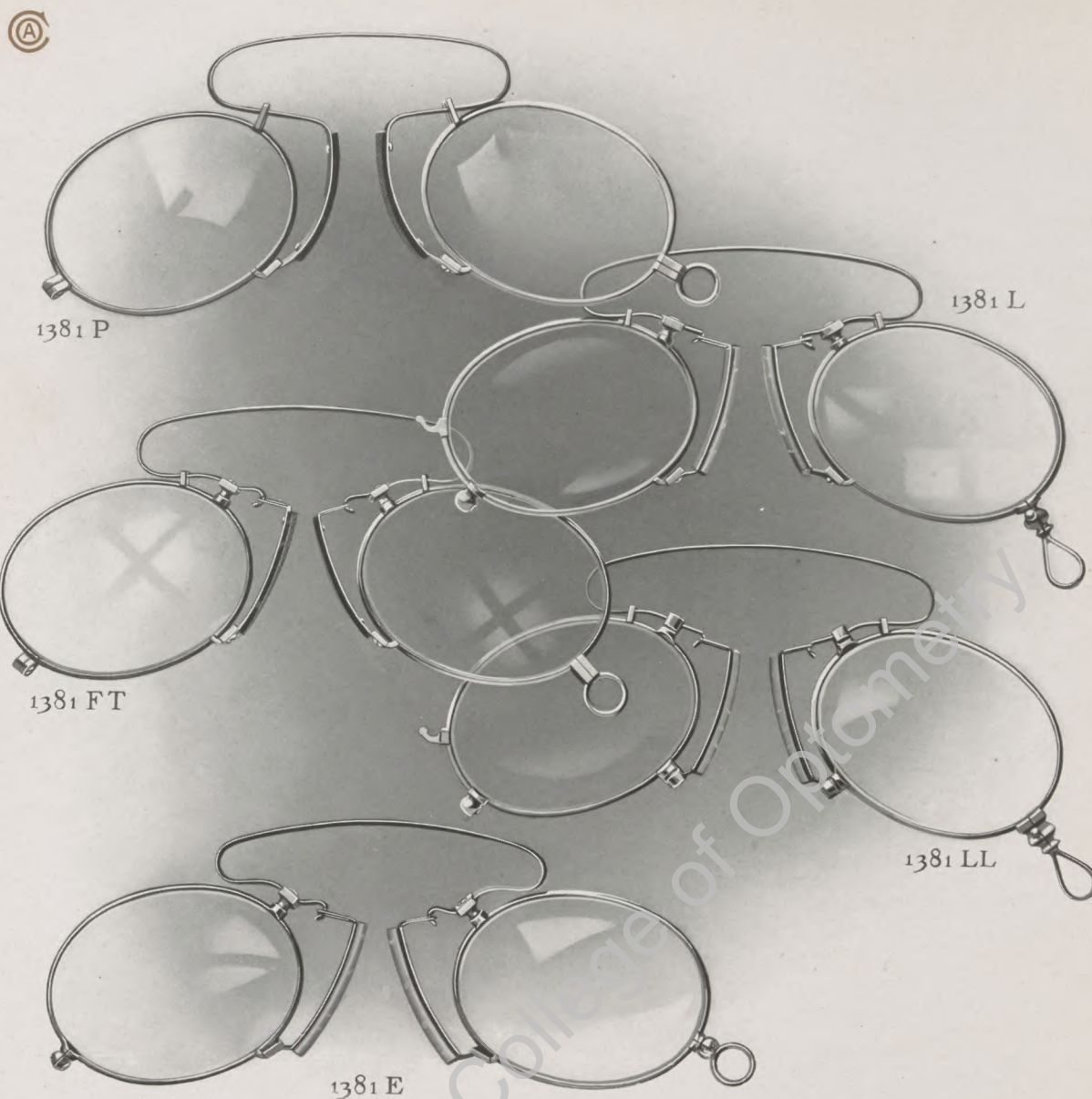
## CATALOGUE NUMBER

## DESCRIPTION

										Ring Handle
1361	-	-	-	-	-	-	-	-	-	Rigid
1362	-	-	-	-	-	-	-	-	-	Long Offset
1363	-	-	-	-	-	-	-	-	-	Offset
1371	-	-	-	-	-	-	-	-	-	Double Adjustable
1373	-	-	-	-	-	-	-	-	-	Double Adjustable Offset
1380	-	-	-	-	-	-	-	-	-	Solid Adjustable
1381	-	-	-	-	-	-	-	-	-	Adjustable
1383	-	-	-	-	-	-	-	-	-	Adjustable Offset
										Extra Finish, Ball Ring Handle, Ball Left Joint
1366	-	-	-	-	-	-	-	-	-	Rigid
1367	-	-	-	-	-	-	-	-	-	Offset
1386	-	-	-	-	-	-	-	-	-	Adjustable
1387	-	-	-	-	-	-	-	-	-	Adjustable Offset

Cork Guards supplied unless otherwise ordered.



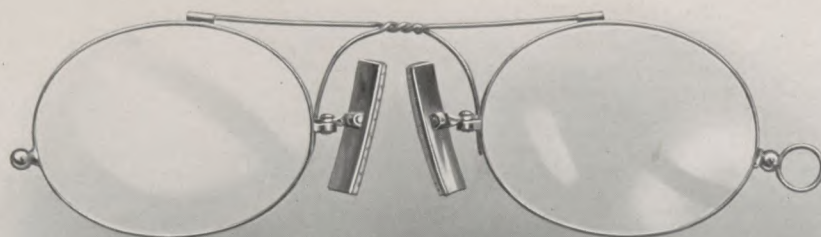


## ALUMNICO EYEGLOSS FRAMES.— EUROPEAN STYLES

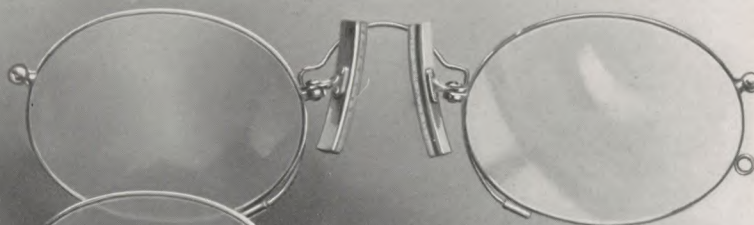
CATALOGUE NUMBER				DESCRIPTION			
French Style 70 mm. tied spring	English Style 63 mm. tied spring	English Style 89 mm. tied springs	Perfection Style 140 mm. tied springs	Adjustable			
1381 F.T.	1381 E	1381 L	1381 P	-	-	-	Good Quality
		1381 LL	-	-	-	-	Fine Quality
1383 F.T.	1383 E	1383 L	1383 P	-	-	-	Good Quality
		1383 LL	-	-	-	-	Fine Quality

Nos. 1381 L, 1383 L, 1381 LL and 1383 LL regularly supplied with Catch and Pin.





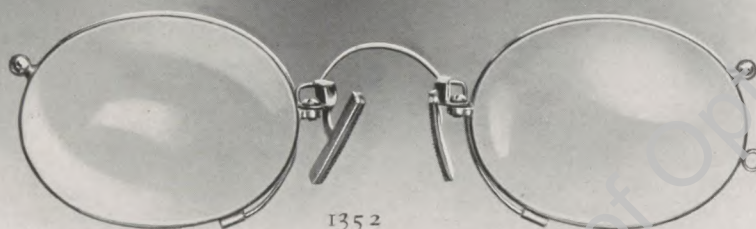
1355 R



1357 S



1357 R



1352

## ALUMNICO BAR SPRING EYEGLASS FRAMES

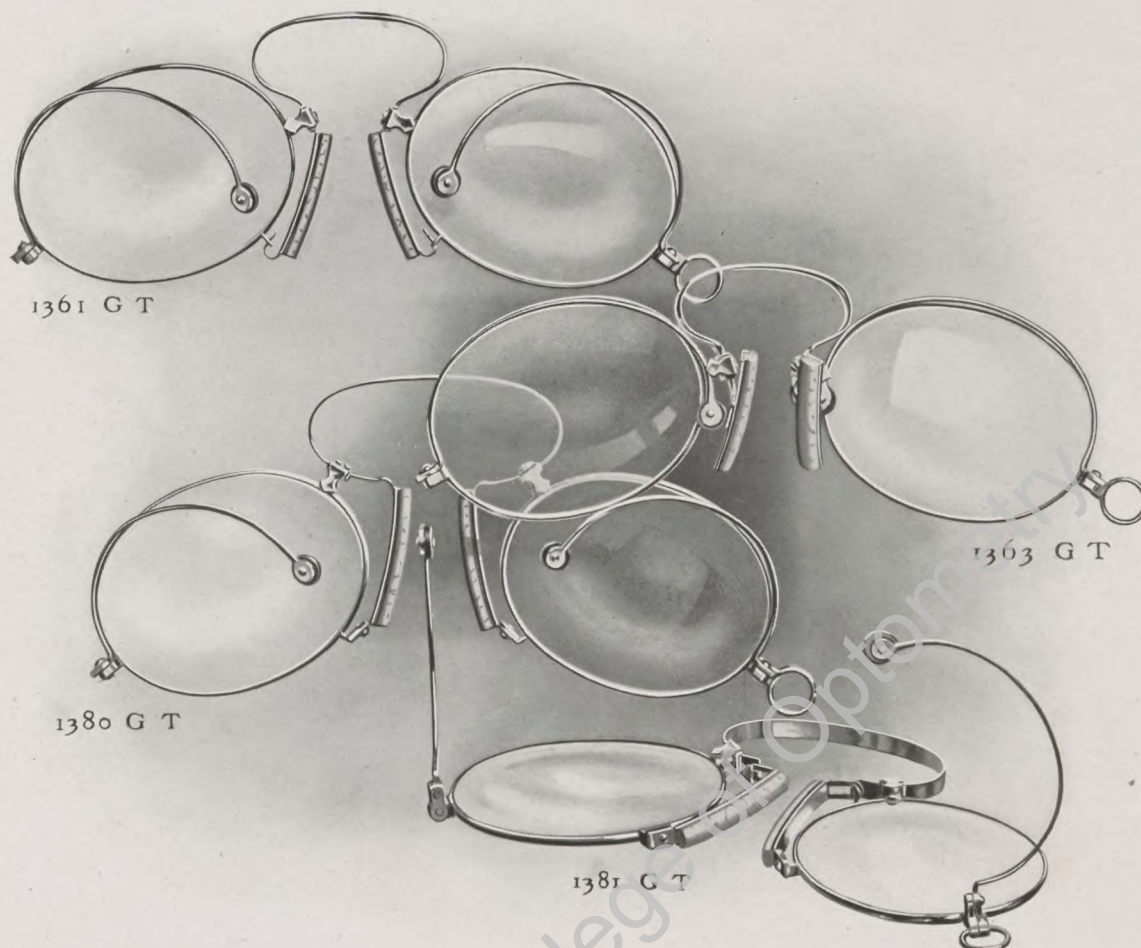
CATALOGUE NUMBER				DESCRIPTION			
"AA"	"D"	"F"		Ring Handle, Medium Weight			
1363 AA - - - -	1363 D - - - -	1363 F - - - -		Offset			
	Extra Finish						
1367 AA - - - -	1367 D - - - -	1367 F - - - -		Offset			
"Astig" or Rigid Bar Spring, Ring for Cord, Rocking Offset Guards							
Round Bar	Oval Bar	Flat Bar	Triple Bar				
1375 L - - - -	1375 - - - -	1376 - - - -	1377 - - - -	Light			
13533 - - - -	1375 - - - -	1376 - - - -	1377 - - - -	Medium			

## ALUMNICO REVLUC EYEGLASS FRAMES

CATALOGUE NUMBER				DESCRIPTION			
Interchangeable Offset	Rocking	Solid					
1350 - - - -	1355 R - - - -	1355 S - - - -		Medium			
1351 - - - -	- - - -	- - - -		Medium			
1352 - - - -	1357 R - - - -	1357 S - - - -		Medium			

No. 1351 has Spring similar to No. 1355 without Cross Bar.  
For illustrations of Bar Spring Frames, see page 79.  
Cork Guards supplied unless otherwise ordered.





## ALUMNICO EYEGLASS FRAMES—GRAB TEMPLE

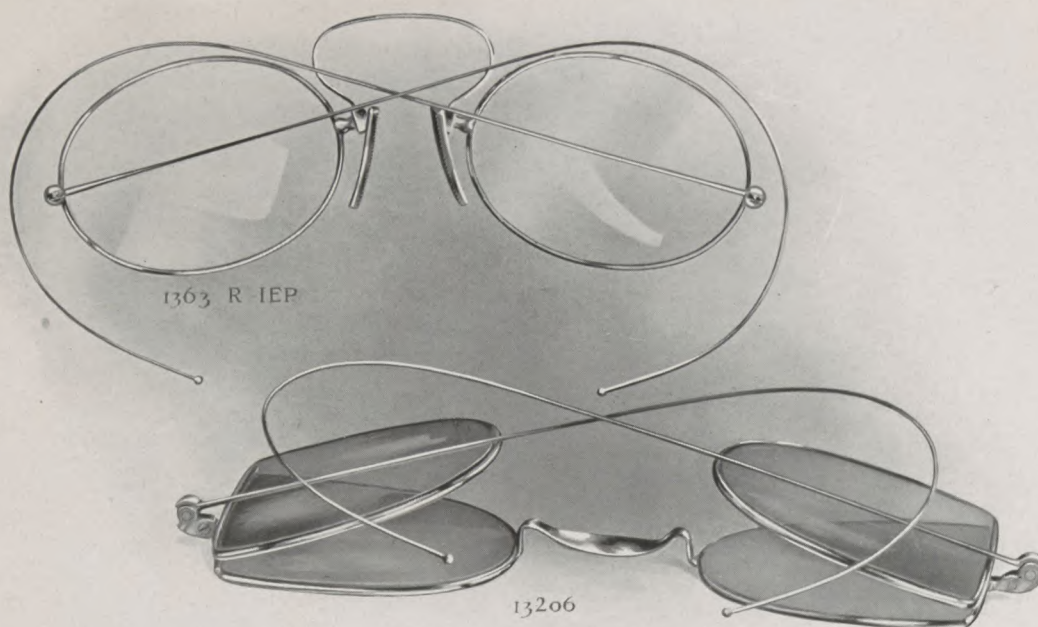
CATALOGUE NUMBER

DESCRIPTION

1361 G.T.	-	-	-	-	-	-	-	-	-	-	Ring Handle
1363 G.T.	-	-	-	-	-	-	-	-	-	-	Rigid
1380 G.T.	-	-	-	-	-	-	-	-	-	-	Offset
1381 G.T.	-	-	-	-	-	-	-	-	-	-	Solid Adjustable
1383 G.T.	-	-	-	-	-	-	-	-	-	-	Adjustable
											Adjustable Offset

Cork Guards supplied unless otherwise ordered.  
 Temples on above Frames are regularly made with Zylonite Pads.





## ALUMNICO COMBINATION AND SPECTACLETTE FRAMES

## CATALOGUE NUMBER

## DESCRIPTION

## Riding Temple (No. 1318)

Invisible End Piece  
Solid Joint

1363 R I.E.P.	-	-	-	-	-	-	-	-	Combination, Offset, Fine Quality
1367 R I.E.P.	-	-	-	-	-	-	-	-	Combination, Offset, Extra Fine Quality
1381 R I.E.P.	-	-	-	-	-	-	-	-	Combination, Adjustable, Fine Quality
1368 I.E.P.	-	-	-	-	-	-	-	-	Spectaclette, Fine Quality

## Cable Temple (No. 1318 C)

1363 R.C. I.E.P.	-	-	-	-	-	-	-	-	Combination, Offset, Fine Quality
1367 R.C. I.E.P.	-	-	-	-	-	-	-	-	Combination, Offset, Extra Fine Quality
1381 R.C. I.E.P.	-	-	-	-	-	-	-	-	Combination, Adjustable, Fine Quality
1368 C I.E.P.	-	-	-	-	-	-	-	-	Spectaclette, Fine Quality

Cork Guards supplied unless otherwise ordered.

## ALUMNICO SPECTACLE FRAMES — DOUBLE EYE

## CATALOGUE NUMBER

## DESCRIPTION

## Riding Temple, "SS" Bridge, Horseshoe

## Cap Joint

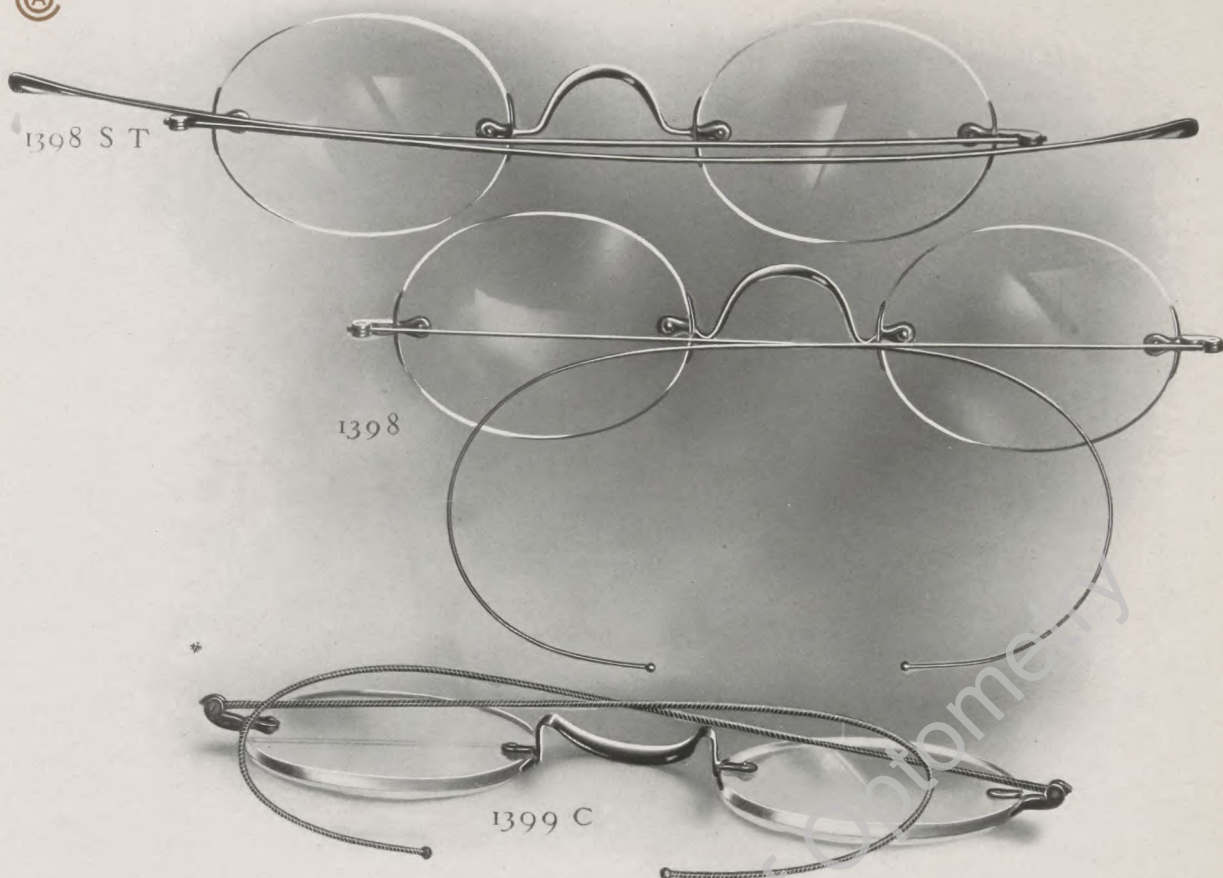
13206	-	-	-	-	-	-	-	-	Fine Quality
-------	---	---	---	---	---	---	---	---	--------------

## Cable Temple

13206 C	-	-	-	-	-	-	-	-	Fine Quality
---------	---	---	---	---	---	---	---	---	--------------

For Horseshoe Eye sizes, see page 29.

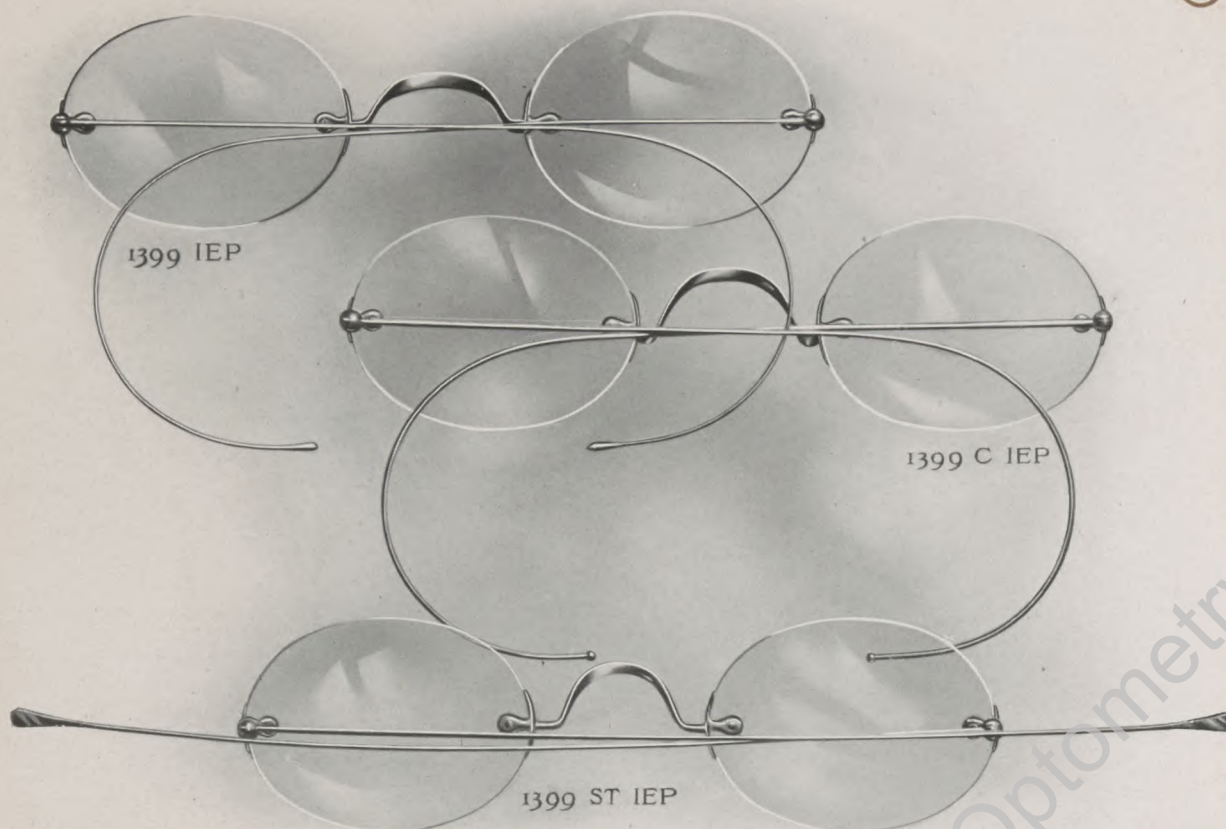




## ALUMNICO SPECTACLE MOUNTINGS

CATALOGUE NUMBER	DESCRIPTION
Rounded End Piece Solid Joint 1398 S.T.	Straight Temple, "C" Bridge Medium, Half-round Temple
1398	Riding Temple, "SS" Bridge Medium
1398 C	Cable Temple, "SS" Bridge Medium
Beveled End Piece Solid Joint 1399 S.T.	Straight Temple, "C" Bridge, Extra Finish Medium, Half-round Temple
1399	Riding Temple, "SS" Bridge, Extra Finish, Pear Tip Medium
1399 C	Cable Temple, "SS" Bridge, Extra Finish Medium





## ALUMNICO SPECTACLE MOUNTINGS

CATALOGUE NUMBER	DESCRIPTION
Patented Invisible End Piece Solid Joint	Straight Temple, "C" Bridge
1399 S.T. I.E.P. - - - - -	Medium, Half-round Temple
1399 I.E.P. - - - - -	Riding Temple, "SS" Bridge
- - - - -	Medium
1399 C I.E.P. - - - - -	Cable Temple, "SS" Bridge
- - - - -	Medium

## ALUMNICO GRAB FRONT MOUNTINGS

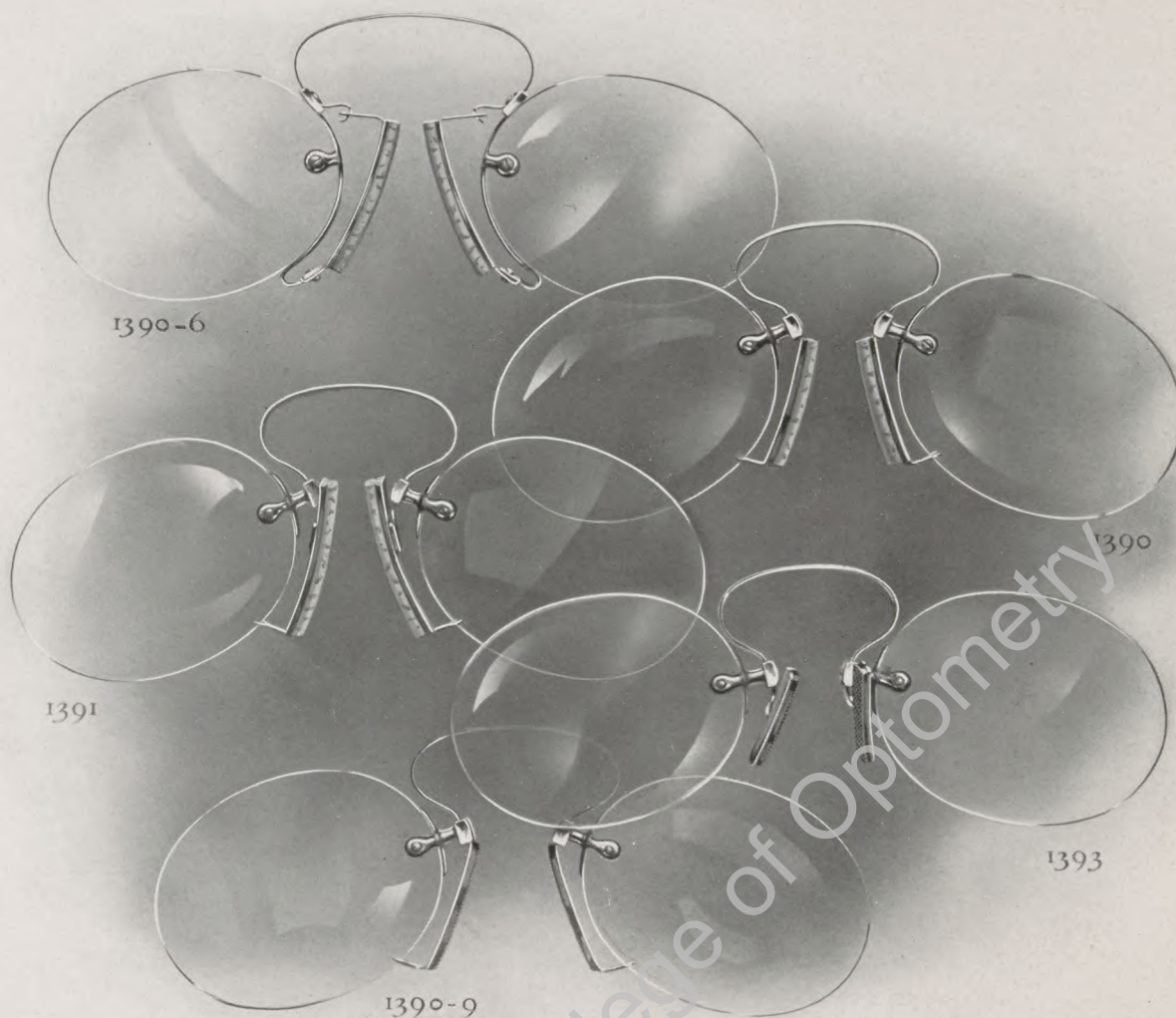
CATALOGUE NUMBER	DESCRIPTION
1319.9 - - - - -	Oval Wire Bridge, with Handle and Hooks
1329.9 - - - - -	Medium

## ALUMNICO MEDIO GRAB FRONT MOUNTINGS.—PATENTED

CATALOGUE NUMBER											DESCRIPTION			
For "SS" Bridge						For "C" Bridge						Oval Wire Bridge, no Handle		
1349.9	-	-	-	-	-	1359.9	-	-	-	-	-	-	-	Medium

No. 1329.9 style, sometimes called Grab Back. See No. 1329, page 118.



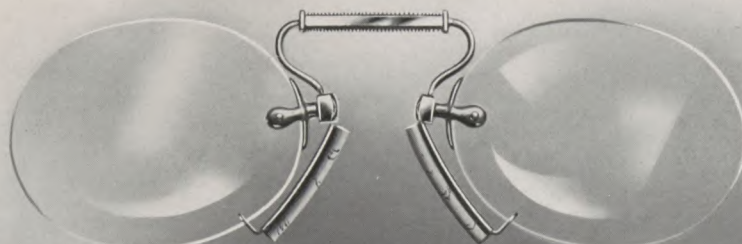


## ALUMNICO EYEGGLASS MOUNTINGS

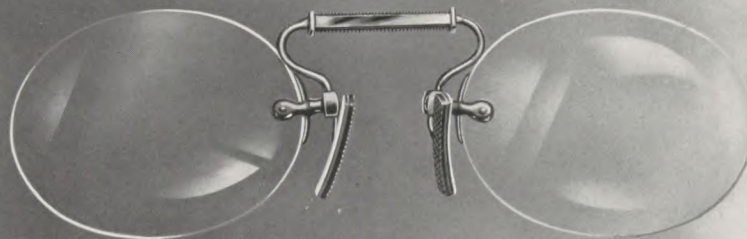
CATALOGUE NUMBER	DESCRIPTION
1390	Medium Weight
1391	Rigid
1393	Long Offset
1393 C.S.S.	Offset
1390.6	Offset, Extra Finish, Countersunk Stud Screw
1390.7	Adjustable
1390.9	Adjustable Offset
	Rigid, Extra Finish, Countersunk Stud Screw, Zylonite

Cork Guards supplied unless otherwise ordered, except No. 1390.9, which are Zylonite only.

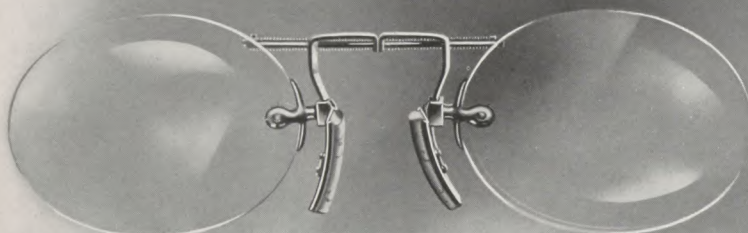




1390 AA



1393 AA



1393 D



1397 R

## ALUMNICO BAR SPRING EYEGLASS MOUNTINGS

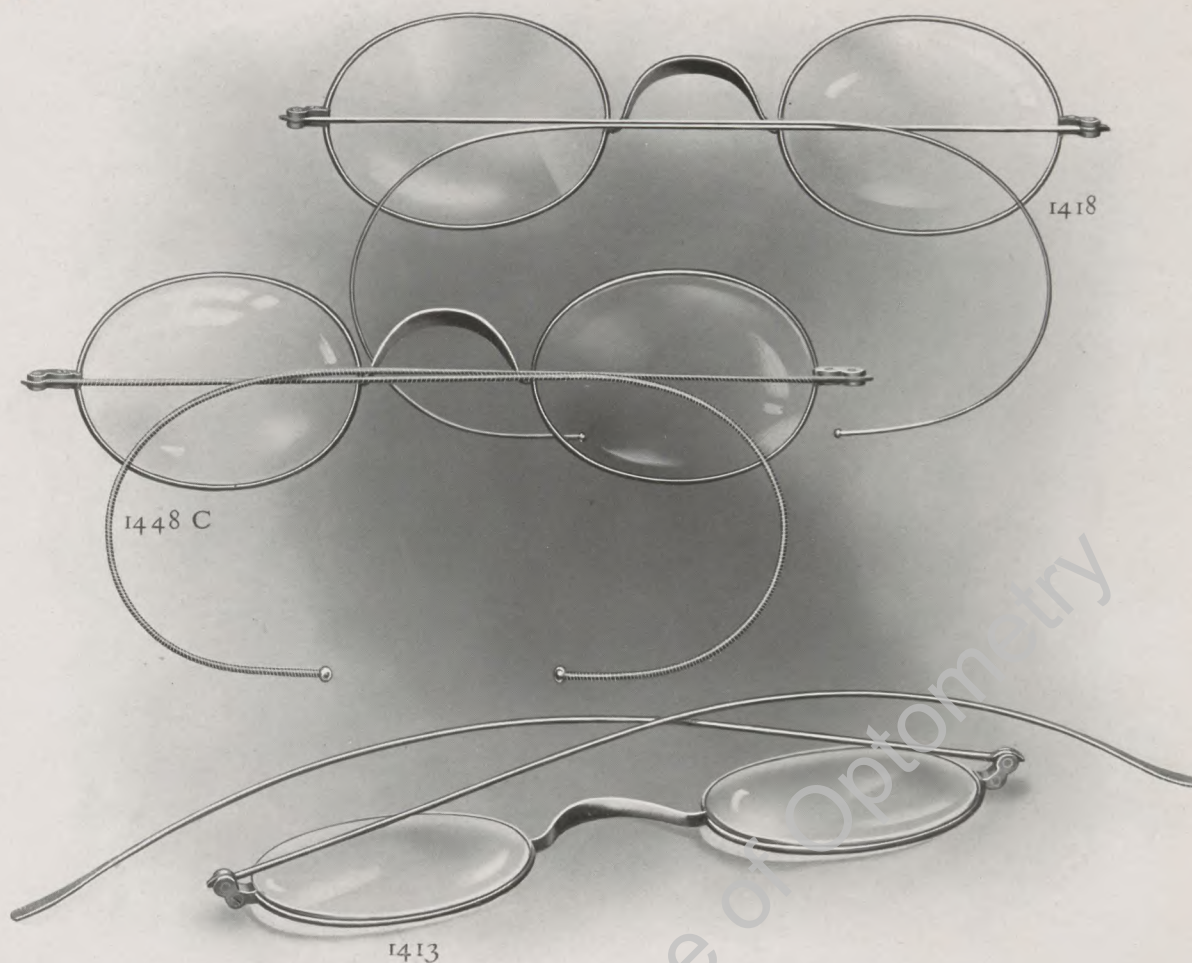
CATALOGUE NUMBER				DESCRIPTION	
"A"	"AA"	"D"	"F"	Medium Weight	
1390 A - -	1390 AA - -	1390 D - -	1390 F - - - -	Rigid	
1393 A - -	1393 AA - -	1393 D - -	1390 F - - - -	Offset	

## ALUMNICO REVLUC EYEGLASS MOUNTINGS

CATALOGUE NUMBER				DESCRIPTION	
Rocking		Solid			
1397 R - -	- -	1397 S - -	- - - -	Medium	

Cork Guards supplied unless otherwise ordered.





## ALUMNICA SPECTACLE FRAMES

CATALOGUE NUMBER

DESCRIPTION

Solid Joint

Straight Temple, "C" Bridge

1413	-	-	-	-	-	-	-	-	-	Medium, Half-round Temple, Ogee End Piece
1443	-	-	-	-	-	-	-	-	-	Medium, Half-round Temple, Beveled End Piece

Riding Temple, "SS" Bridge

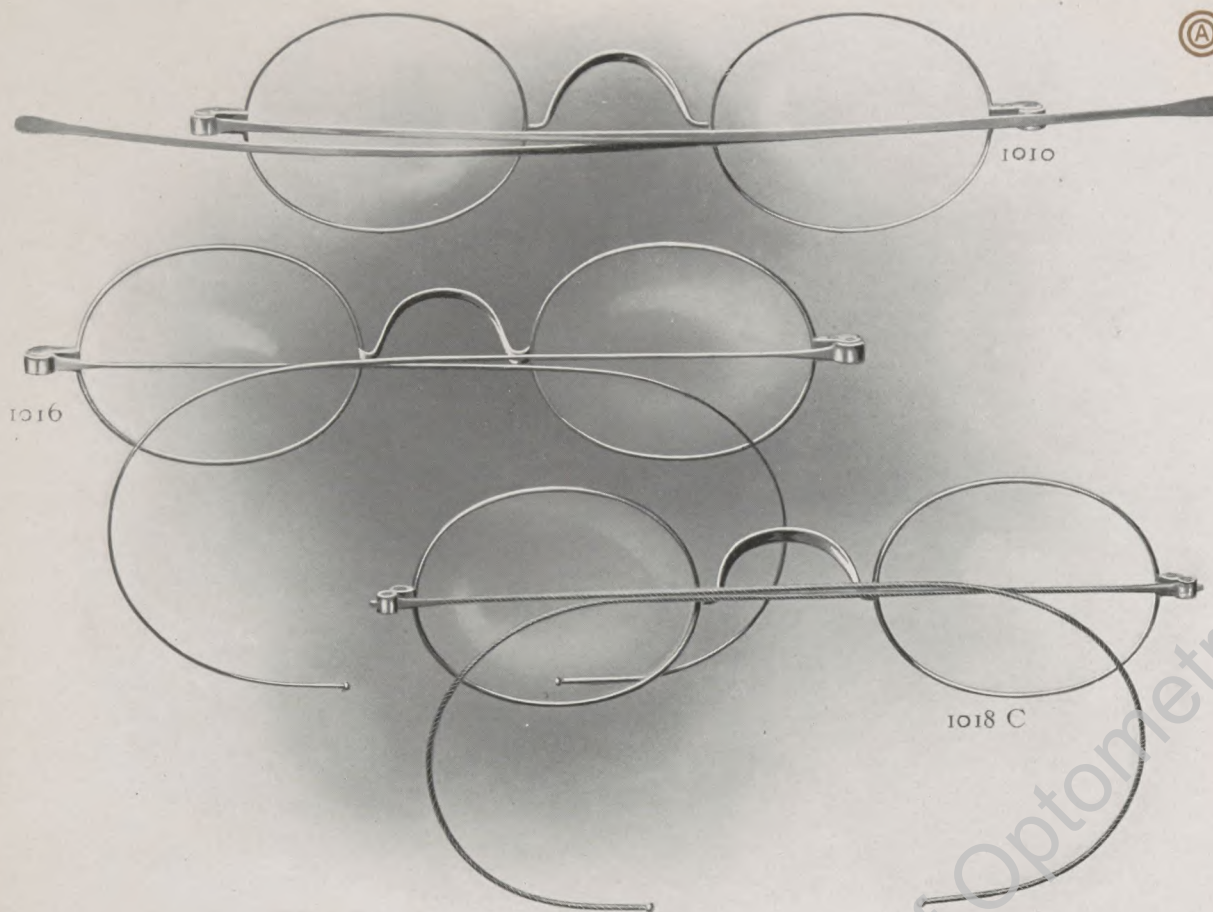
1418	-	-	-	-	-	-	-	-	-	Medium, Ogee End Piece
1448	-	-	-	-	-	-	-	-	-	Medium, Beveled End Piece
1448 $\frac{3}{4}$	-	-	-	-	-	-	-	-	-	Extra Heavy, Beveled End Piece

Cable Temple, "SS" Bridge

1418 C	-	-	-	-	-	-	-	-	-	Medium, Ogee End Piece
1448 C	-	-	-	-	-	-	-	-	-	Medium, Beveled End Piece
1448 $\frac{3}{4}$ C	-	-	-	-	-	-	-	-	-	Extra Heavy, Beveled End Piece

See page 93 for description of metal ALUMNICA.



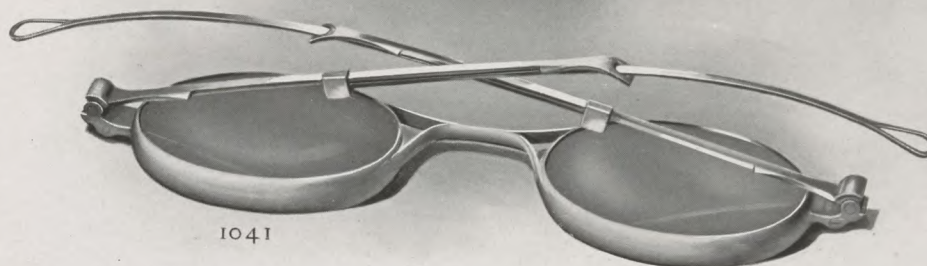
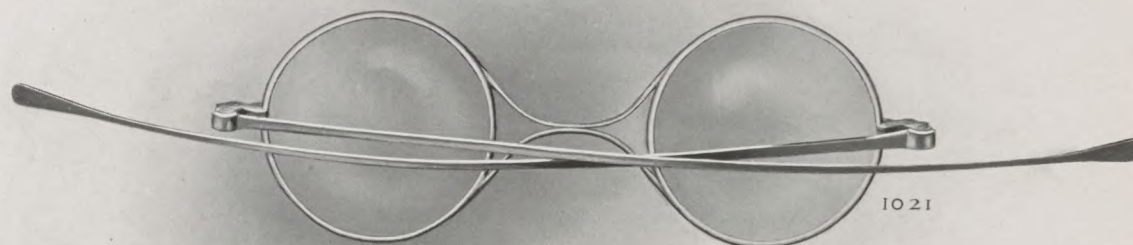


## GERMAN SILVER SPECTACLE FRAMES

CATALOGUE NUMBER		DESCRIPTION	
		Straight Temple	
Rounded End Piece	Special End Piece	Nickel-plated	
Cap Joint	Solid Joint		
1000	-	Medium Quality, Flat Eyewire, Flat Temple	
1001	-	Medium Quality, Flat Temple	
1010	-	Good Quality, Flat Eyewire, Flat Temple	
1011	-	Good Quality, Flat Temple	
	1004	Ordinary Quality, Flat Eyewire, Flat Temple	
	1005	Ordinary Quality, Flat Temple	
1013	-	Good Quality, Half-round Temple	
		Half-riding Temple	
1007	-	Medium Quality	
1017	-	Good Quality	
		Riding Temple	
	1006	Ordinary Quality	
		Ogee End Piece	
	Solid Joint		
	1008	Medium Quality	
1016	1018	Good Quality	
		Cable Temple	
	1008 C	Medium Quality	
1016 C	1018 C	Good Quality	

All above Frames have Oval Eyewire except Nos. 1000, 1004 and 1010.  
 Nos. 1000, 1001, 1004 and 1005 supplied in AOCo B.C. Assortment of "C" Bridges. See page 37.  
 Nos. 1006, 1007 and 1008 supplied in AOCo B Assortment of "SS" Bridges. See page 37.  
 See No. 308, page 98 for style of special End Piece used on Nos. 1104, 1105 and 1106.





### GERMAN SILVER SMELTERS' AND BESSEMER SPECTACLE FRAMES

CATALOGUE NUMBER				DESCRIPTION			
Cap Joint Heavy		Cap Joint Extra Heavy		Nickel-plated			
1021	-	-	1031	-	Smelters' Round Eye, "X" Bridge, Flat Straight Temples		
	-	-	1041	-	Bessemer, Oval Eye, "K" Bridge, Band Slide Temples		

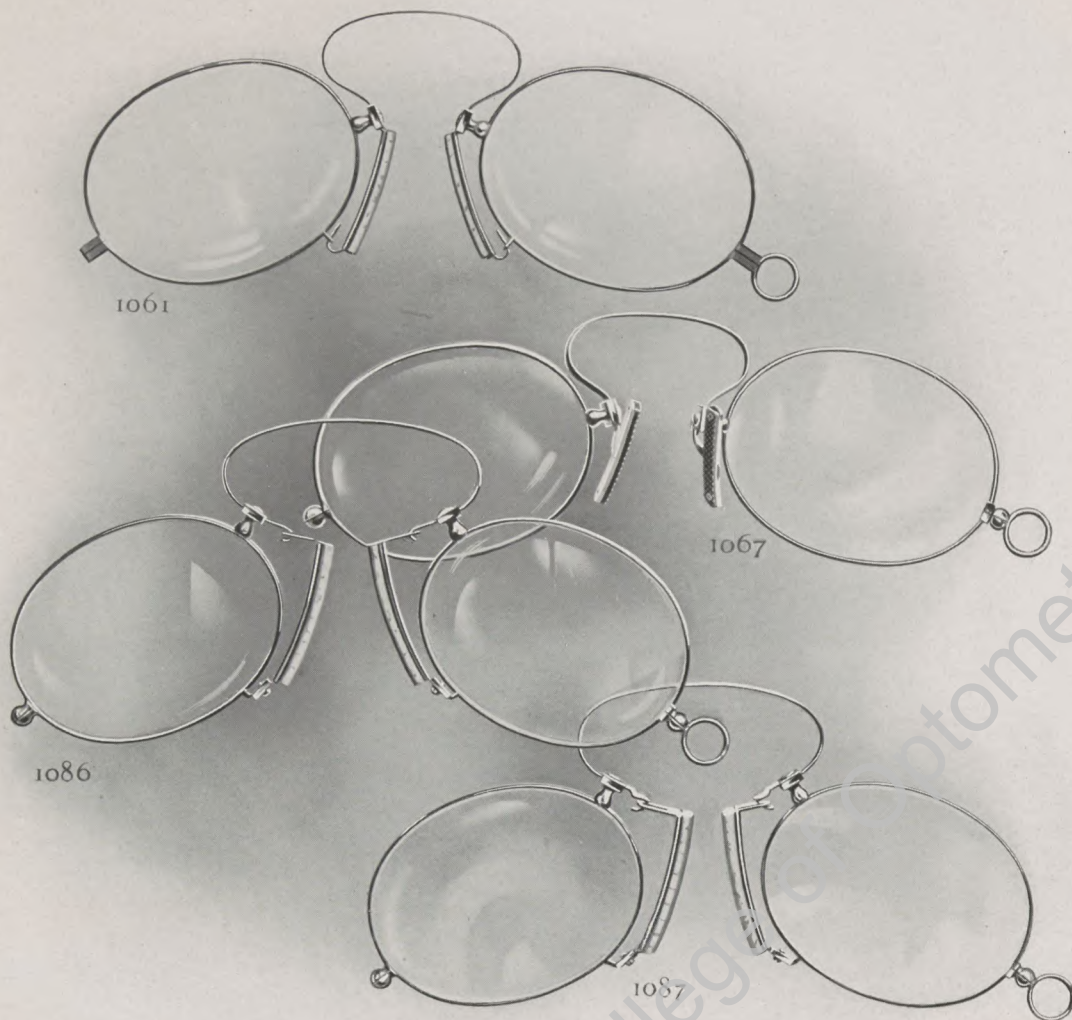
Above Frames supplied with either "X" or "K" Bridge, as ordered.  
 Nos. 1021 and 1031 supplied with Loop Slide or Band Slide Temples when so ordered.  
 Smelters' Frames fitted with Plano Secons, Blue Lenses, shade as ordered.  
 Bessemer Frames fitted with Lenses (three colors combined) when so ordered.

### GERMAN SILVER CHINESE STYLE SPECTACLE FRAMES

CATALOGUE NUMBER													DESCRIPTION
													Straight Temple
Cap Joint													Nickel-plated
1053 Z	-	-	-	-	-	-	-	-	-	-	-	-	"Z" Bridge
1053 RR	-	-	-	-	-	-	-	-	-	-	-	-	"RR" Bridge
													Riding Temple
1056 Z	-	-	-	-	-	-	-	-	-	-	-	-	"Z" Bridge
													Cable Temple
1056 C.Z.	-	-	-	-	-	-	-	-	-	-	-	-	"Z" Bridge

For illustrations of Chinese styles, see page 133.





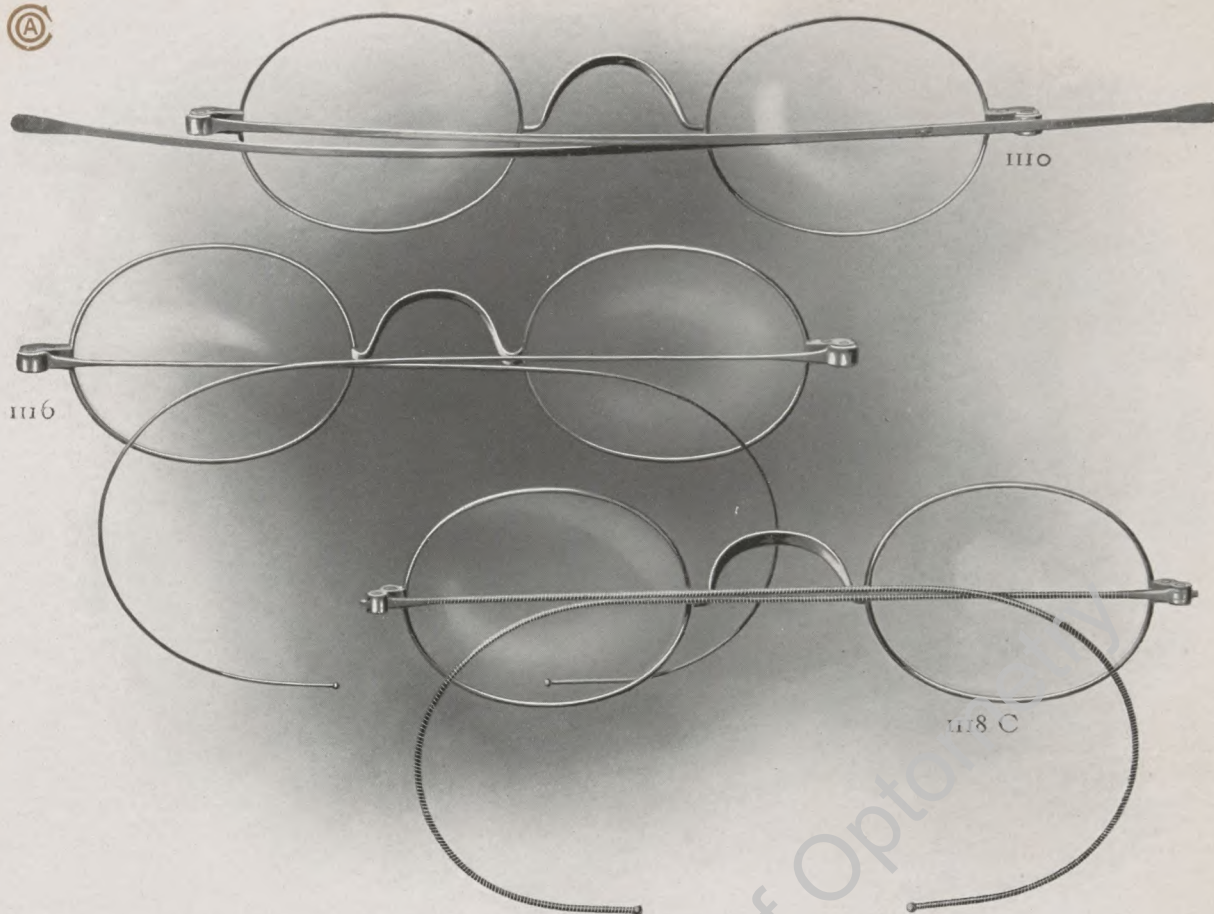
## GERMAN SILVER EYEGLASS FRAMES

CATALOGUE NUMBER												DESCRIPTION
Medium Quality Ring Handle				Good Quality Ring Handle				Fine Quality Ball Ring Handle, Ball Left Joint				Nickel-plated
1061½	-	-	-	1061	-	-	-	1066	-	-	-	Rigid
1063½	-	-	-	1063	-	-	-	1067	-	-	-	Offset
1081½	-	-	-	1081	-	-	-	1086	-	-	-	Adjustable
1083½	-	-	-	1083	-	-	-	1087	-	-	-	Adjustable Offset

Cork Guards supplied unless otherwise ordered.

Loop Handle supplied on above Frames when so ordered, see illustration of Handle, No. 7 H, Material Section.





## ROMAN ALLOY SPECTACLE FRAMES

CATALOGUE NUMBER

DESCRIPTION

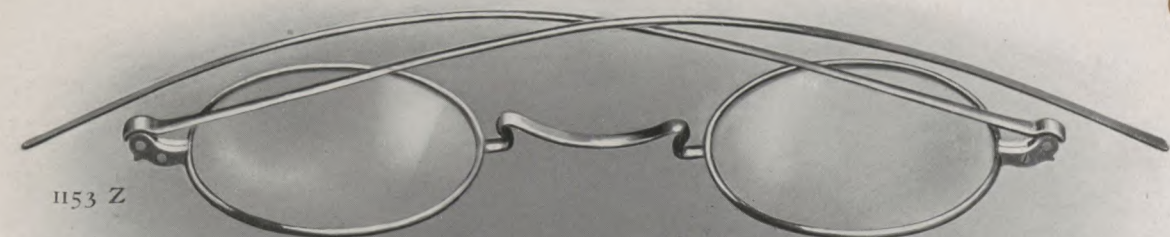
Straight Temple				
Rounded End Piece Cap Joint	Special End Piece Solid Joint			
1100	-	-	-	Medium Quality, Flat Eyewire, Flat Temple
1101	-	-	-	Medium Quality, Flat Temple
1110	-	-	-	Good Quality, Flat Eyewire, Flat Temple
1111	-	-	-	Good Quality, Flat Temple
		1104	-	Ordinary Quality, Flat Eyewire, Flat Temple
		1105	-	Ordinary Quality, Flat Temple
1113	-	-	-	Good Quality, Half-round Temple
Half-riding Temple				
1107	-	-	-	Medium Quality
1117	-	-	-	Good Quality
Riding Temple				
		1106	-	Ordinary Quality
Ogee End Piece Solid Joint				
		1108	-	Medium Quality
1116	-	1118	-	Good Quality
Cable Temple				
		1108 C	-	Medium Quality
		1118 C	-	Good Quality

All above Frames have Oval Eyewire except Nos. 1100, 1104 and 1110.  
 Nos. 1100, 1101, 1104 and 1105 supplied in AOCo B.C. Assortment of "C" Bridges. See page 37.  
 Nos. 1107, 1106, 1108 and 1118 supplied in AOCo B Assortment of "SS" Bridges. See page 37.





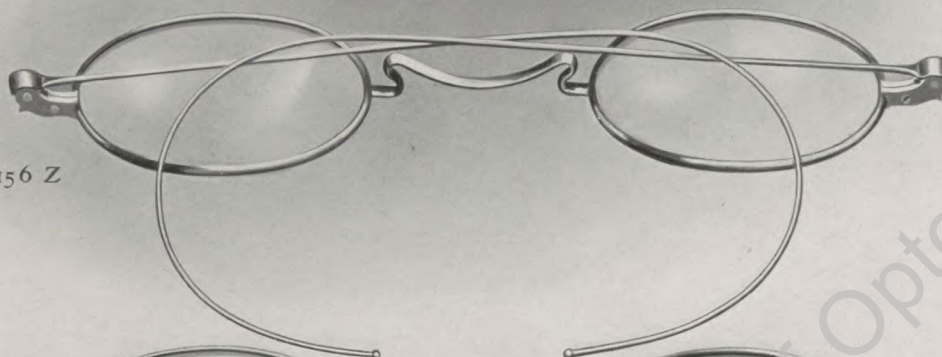
1153 Z



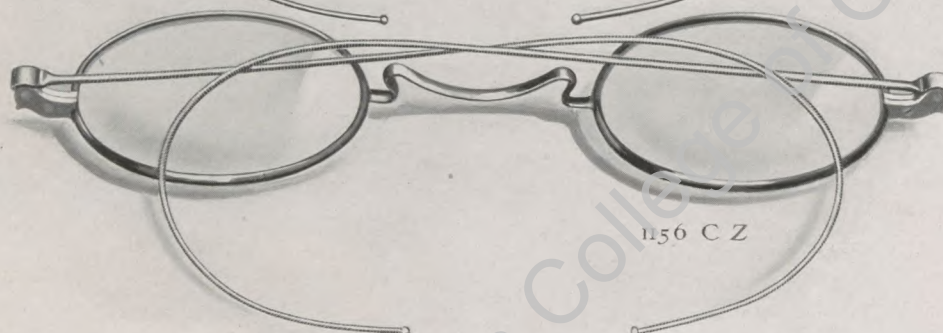
1153 R R



1156 Z



1156 C Z

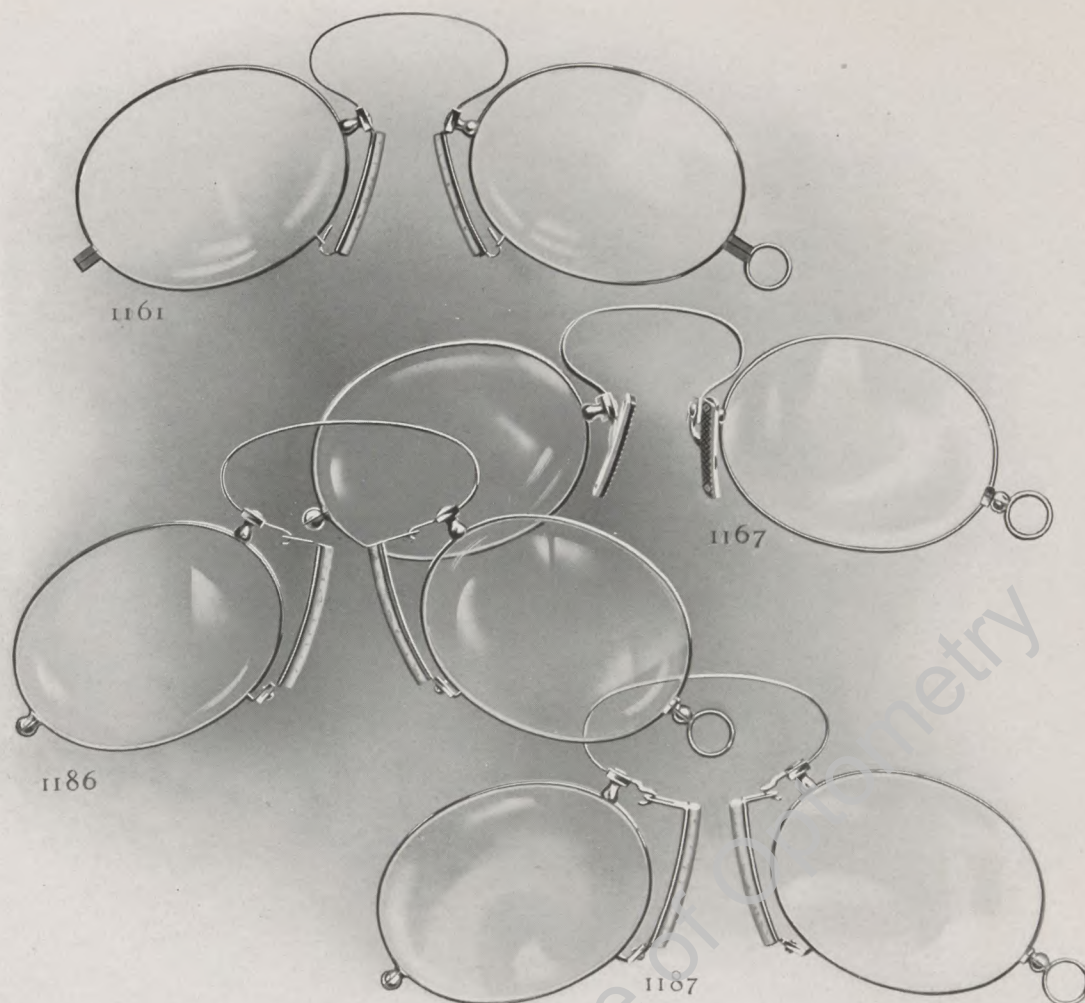


## ROMAN ALLOY CHINESE STYLE SPECTACLE FRAMES

CATALOGUE NUMBER		DESCRIPTION	
		Straight Temple	
Cap Joint			Nickel-plated
1153 Z	- - - - -		"Z" Bridge
1153 RR	- - - - -		"RR" Bridge
		Riding Temple	
1156 Z	- - - - -		"Z" Bridge
		Cable Temple	
1156 C.Z.	- - - - -		"Z" Bridge

Above styles supplied also in German Silver. See page 130.





### ROMAN ALLOY EYEGGLASS FRAMES

CATALOGUE NUMBER										DESCRIPTION
Medium Quality Ring Handle				Good Quality Ring Handle		Fine Quality, Ball Ring Handle Ball Left Joint				
1161 1/2	-	-	-	1161	-	-	-	1166	-	Rigid
1163 1/2	-	-	-	1163	-	-	-	1167	-	Offset
1181 1/2	-	-	-	1181	-	-	-	1186	-	Adjustable
1183 1/2	-	-	-	1183	-	-	-	1187	-	Adjustable Offset

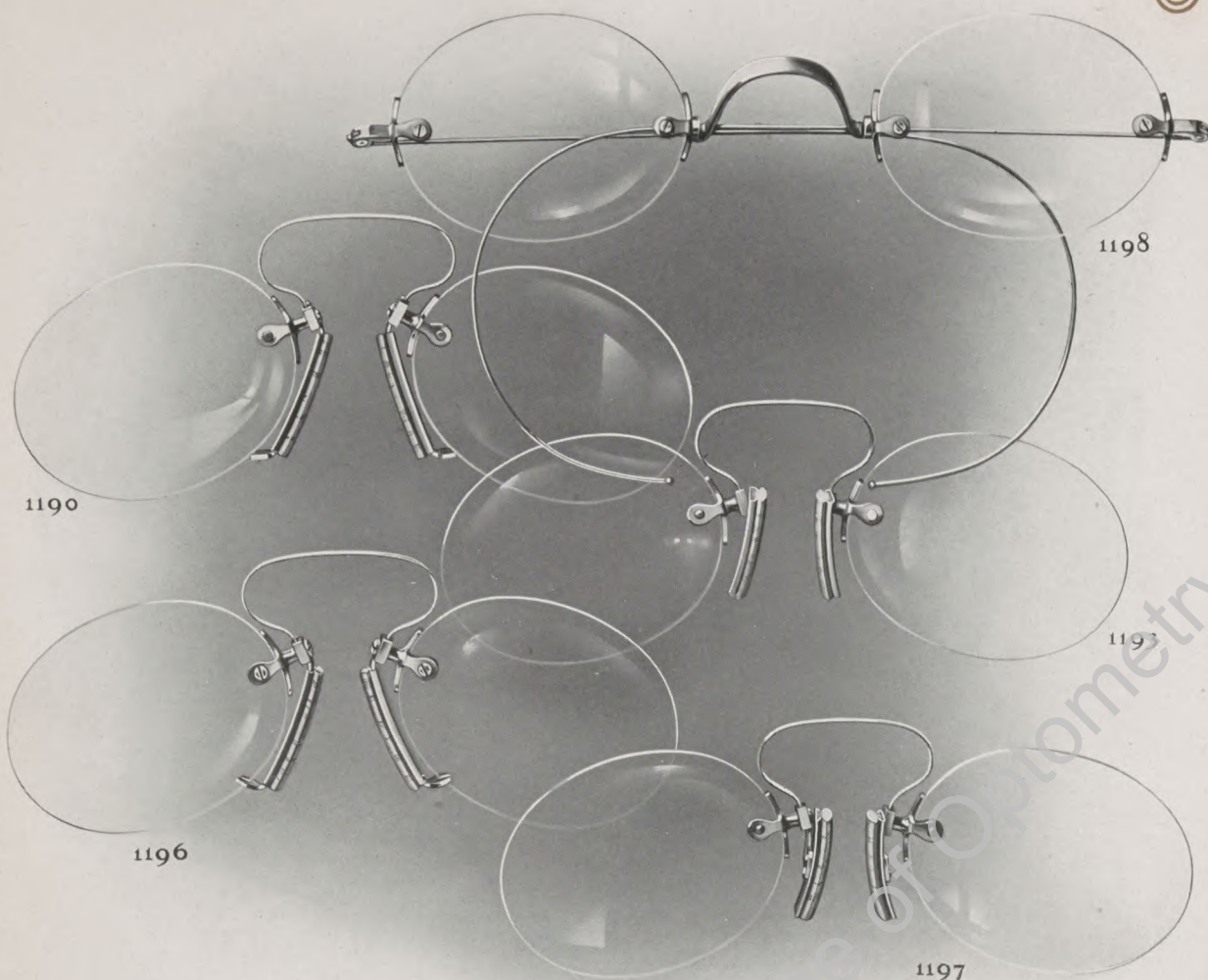
### ROMAN ALLOY BAR SPRING EYEGGLASS FRAMES

CATALOGUE NUMBER										DESCRIPTION
"AA"					"D"					Ring for Cord, Good Quality
1161 AA	-	-	-	-	1161 D	-	-	-	-	Rigid
1163 AA	-	-	-	-	1163 D	-	-	-	-	Offset

### ROMAN ALLOY GRAB FRONT FRAMES

CATALOGUE NUMBER										DESCRIPTION
Grab Front		Medio Patented For "SS" Bridge			Medio Patented For "C" Bridge					
1119	-	-	1149	-	-	1159	-	-	-	Good Quality, Oval Wire Bridge





## ROMAN ALLOY SPECTACLE MOUNTINGS

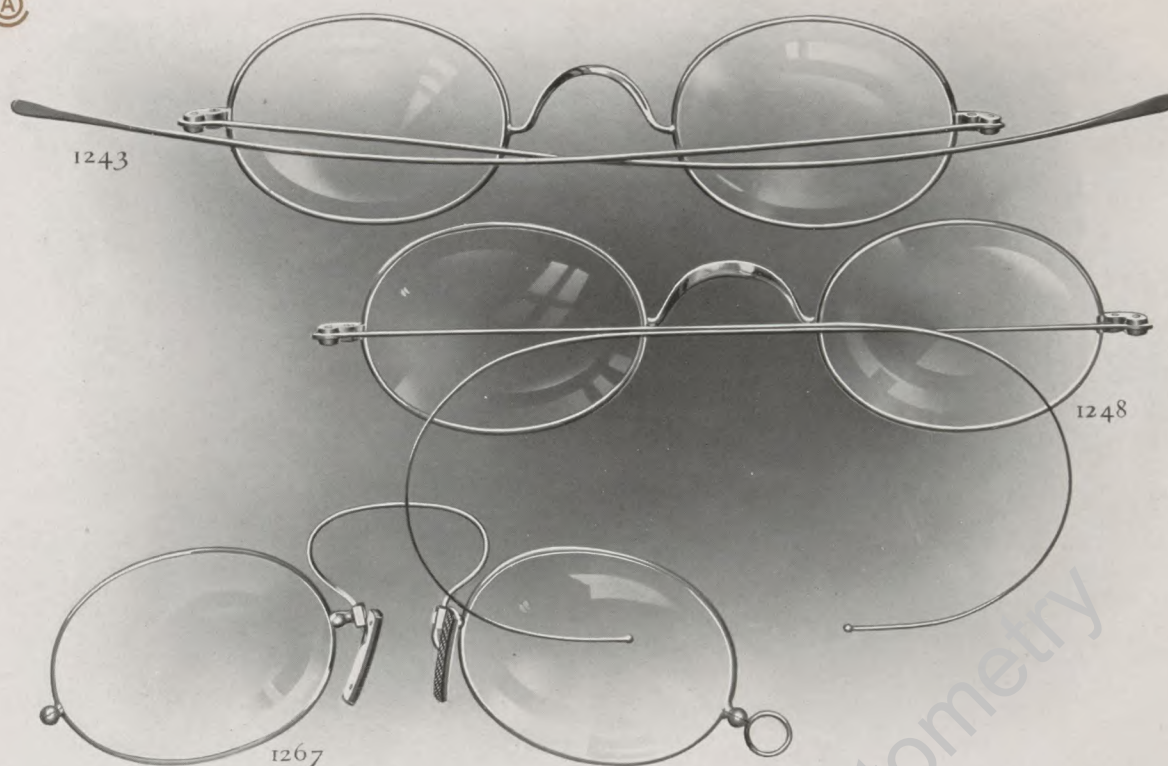
CATALOGUE NUMBER	DESCRIPTION
1190 - - - - -	Rounded End Piece Solid Joint
1193 - - - - -	Riding Temple
1196 - - - - -	Good Quality, Flat Strap
1197 - - - - -	Adjustable
1198 - - - - -	Medium Quality, Flat Strap

## ROMAN ALLOY EYEGLASS MOUNTINGS

CATALOGUE NUMBER	DESCRIPTION
1190 - - - - -	Ordinary Quality, Flat Strap
1193 - - - - -	Rigid Offset, Riveted Construction
1196 - - - - -	Good Quality, Flat Strap
1197 - - - - -	Adjustable Adjustable Offset

Cork Guards supplied unless otherwise ordered.  
Nos. 1190 and 1193 supplied only when fitted with Lenses.  
No. 1198 supplied only when fitted with Lenses.





# REGALOID SPECTACLE FRAMES

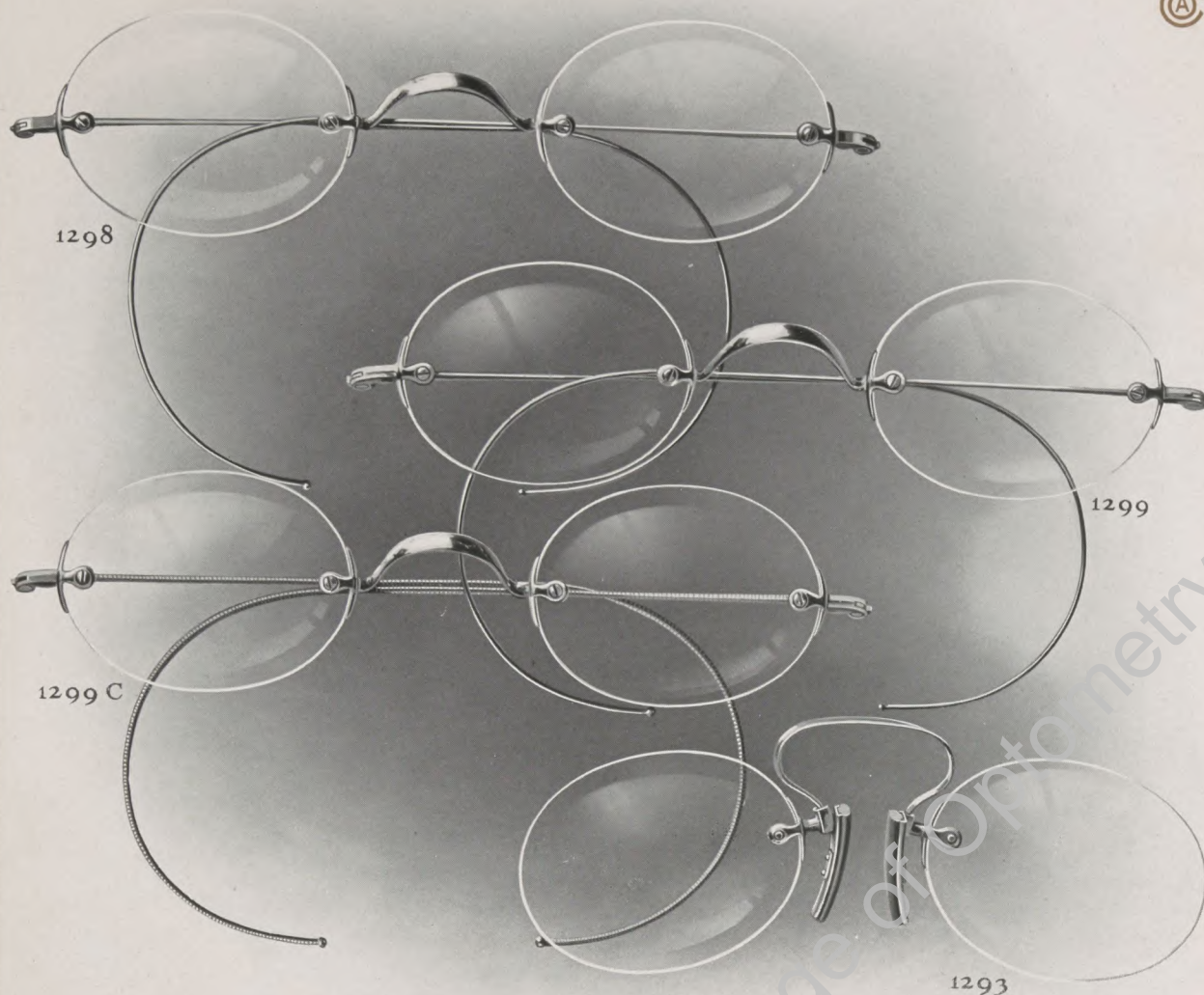
CATALOGUE NUMBER	DESCRIPTION
Beveled End Piece Solid Joint	Straight Temple, "C" Bridge
1243	Extra Finish Fine Quality, Half-round Temple
1247	Half-riding Temple, "SS" Bridge Fine Quality
1248	Riding Temple, "SS" Bridge Fine Quality
1248 C	Cable Temple, "SS" Bridge Fine Quality

# REGALOID EYEGLASS FRAMES

CATALOGUE NUMBER	DESCRIPTION
1266	Fine Quality, Extra Finish, Ball Ring Handle Ball Left Joint
1267	Rigid
1286	Offset
1287	Adjustable
	Adjustable Offset

Cork Guards supplied unless otherwise ordered.  
REGALOID Frames and Mountings are furnished in individual Anti-tarnish Envelopes. They are made from a special alloy, admitting of a high polish and are the best imitation of Gold Frames made. In color they closely resemble 14k Gold Goods.





## REGALOID SPECTACLE MOUNTINGS

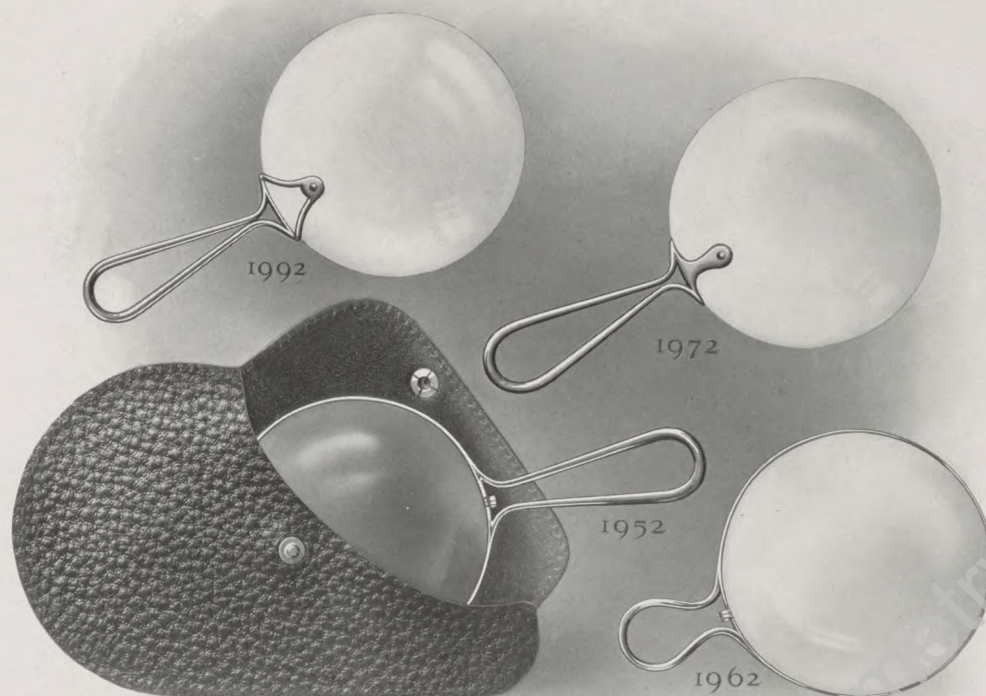
CATALOGUE NUMBER		DESCRIPTION	
		Riding Temple, "SS" Bridge	
Rounded End Piece Solid Joint	Beveled End Piece Solid Joint		Extra Finish Fine Quality
1298 -	1299 -		
		Cable Temple, "SS" Bridge	
1298 C -	1299 C -		Fine Quality

## REGALOID EYEGLASS MOUNTINGS

CATALOGUE NUMBER	DESCRIPTION
1293 -	Fine Quality, Extra Finish Offset

Cork Guards supplied unless otherwise ordered.





## AMOPTISCOPES

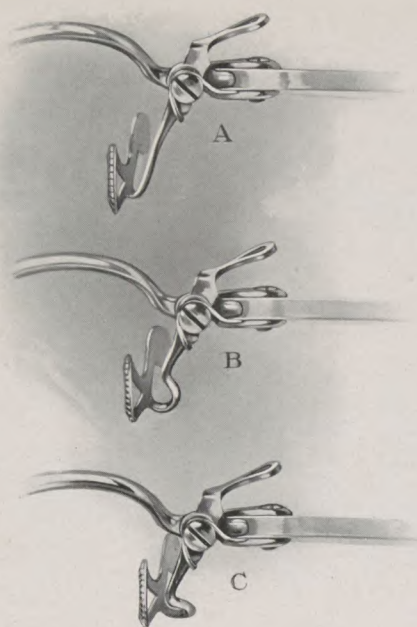
GOLD-FILLED, WITH RIMS				ALUMNICO, WITH RIMS			
Catalogue Number	Diameter	Focus	Style	Catalogue Number	Diameter	Focus	Style
3952	50 mm.	+10.00	Long handle	1952	50 mm.	+10.00	Long handle
3962			Short handle	1962			Short handle
4952			Folding handle	2952			Folding handle
3952	50 mm.	+13.00	Long handle	1952	50 mm.	+13.00	Long handle
3962			Short handle	1962			Short handle
3952 ½	63 mm.	+8.00	Long handle	1952 ½	63 mm.	+8.00	Long handle
3962 ½			Short handle	1962 ½			Short handle
3953	75 mm.	+6.50	Long handle	1953	75 mm.	+6.50	Long handle
3963			Short handle	1963			Short handle
GOLD-FILLED, RIMLESS, Long handle				ALUMNICO, RIMLESS, Long handle			
3972	50 mm.	+10.00	Rimless style strap	1972	50 mm.	+10.00	Rimless style strap
3992			Triangular open strap	1992			Triangular open strap
3972	50 mm.	+13.00	Rimless style strap	1972	50 mm.	+13.00	Rimless style strap
3992			Triangular open strap	1992			Triangular open strap
3972 ½	63 mm.	+8.00	Rimless style strap	1972 ½	63 mm.	+8.00	Rimless style strap
3992 ½			Triangular open strap	1992 ½			Triangular open strap
3973	75 mm.	+6.50	Rimless style strap	1973	75 mm.	+6.50	Rimless style strap
3993			Triangular open strap	1993			Triangular open strap

Amoptiscopes supplied with Flexible Leather Button Flap Cases, with or without lining as ordered. (State focus wanted in ordering from your wholesaler.)

For Amoptiscope Cases only, see Spectacle Case Section.

Folding Handle Amoptiscopes, No. 2952 Alumnico and No. 4952 Gold-filled have handles similar to No. 1952 except hinged. They fold compactly and fit in a small case for pocket use. Made in 50 mm. diameter only.



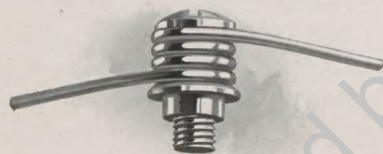


Adjustments for "depth". A and C are extremes back and forward; B, normal position

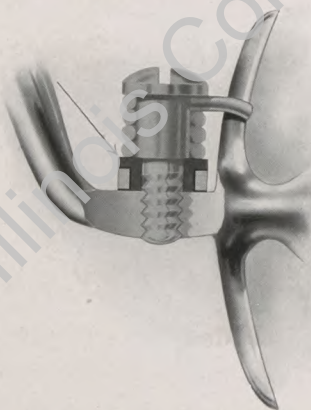
*The AO - Washer* (Patented.) In assembling the parts of AOC<sub>o</sub> finger-piece eyeglasses we employ a tiny washer or bushing (see illustration below), which forms a bearing in which the guard arm may work freely without any tendency either to bind or loosen the screw. Although seemingly an insignificant matter, this bushing, by preventing the screw being driven down too far into the bridge, has the effect of ensuring an easy positive action, and consequently a long and satisfactory service, the importance of which is quite material. This construction is protected by letters patent.

#### *AO - Combined Coil Spring*

*Screw and Washer* (Patent applied for.) By the combination of these important elements a

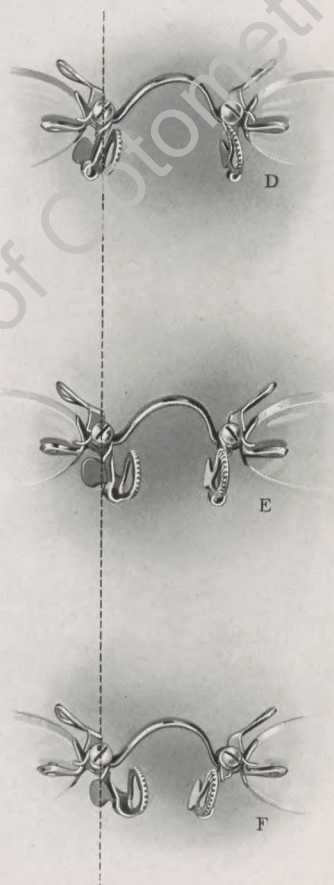


The AO - Combined Coil Spring, Screw and Washer for repair work. Patent applied for.



The AO-Washer, an important detail in AOC<sub>o</sub> finger-piece construction. Patented.

In fitting the Fits-U or other AOC<sub>o</sub> finger-piece eyeglass having the AO-Loop construction the optician first bends the loops to place the guards in the correct vertical and horizontal positions, as in Figures A, B, C, G, H, J. The surface of each guard is then adjusted independently to conform to the bony structure of the nose where the guard is to rest. Each arm is then adjusted to place the guards nearer together (Fig. F), or farther apart (Fig. D), as the case may require, allowing the action of the springs to exert only a very slight pressure upon the nose before the guards come to a positive stop. After these adjustments have been made the free forward edges of the guards should be turned in slightly so that these edges will pile up tiny folds of flesh and effectually prevent the eyeglasses from slipping forward. This last adjustment is the principal and most important function of the patented AO-Loop.



Some of the various adjustments for separation between guards made possible by the patented AO-Loop construction.

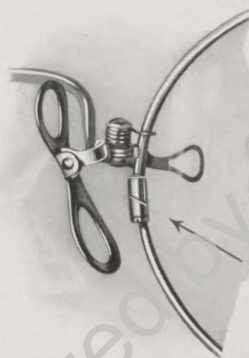


## AOCO SYSTEM OF FINGER-PIECE EYEGGLASS SIZES

Dimension Number	Height Inches Millimeters	Inclination Inches Millimeters	Pupillary Distance			
			1 Eye Millimeters	o Eye Millimeters	oo Eye Inches Millimeters	ooo Eye Millimeters
412	$\frac{1}{8}$ 2	$+\frac{2}{8}$ 3.5	56	$2\frac{4}{8}$ 57.5	59	60
422	$\frac{1}{8}$ 3.5	$+\frac{2}{8}$ 3.5	56	$2\frac{4}{8}$ 57.5	59	60
512	$\frac{1}{8}$ 2	$+\frac{2}{8}$ 3.5	57	$2\frac{5}{8}$ 59.5	60	61
522	$\frac{2}{8}$ 3.5	$+\frac{2}{8}$ 3.5	57	$2\frac{5}{8}$ 59.5	60	61
533	$\frac{3}{8}$ 5	$+\frac{3}{8}$ 5	57	$2\frac{5}{8}$ 59.5	60	61
612	$\frac{1}{8}$ 2	$+\frac{2}{8}$ 3.5	59	$2\frac{6}{8}$ 60.5	62	63
622	$\frac{2}{8}$ 3.5	$+\frac{2}{8}$ 3.5	59	$2\frac{6}{8}$ 60.5	62	63
633	$\frac{3}{8}$ 5	$+\frac{3}{8}$ 5	59	$2\frac{6}{8}$ 60.5	62	63
712	$\frac{1}{8}$ 2	$+\frac{2}{8}$ 3.5	61	$2\frac{7}{8}$ 62.5	64	65
722	$\frac{2}{8}$ 3.5	$+\frac{2}{8}$ 3.5	61	$2\frac{7}{8}$ 62.5	64	65
733	$\frac{3}{8}$ 5	$+\frac{3}{8}$ 5	61	$2\frac{7}{8}$ 62.5	64	65
744	$\frac{4}{8}$ 6.5	$+\frac{4}{8}$ 6.5	61	$2\frac{7}{8}$ 62.5	64	65

The first figure indicates the pupillary distance in sixteenths of an inch above 2 inches for o eye lenses, for example, the numbers beginning with four will have a pupillary distance of  $2\frac{4}{8}$ , numbers beginning with 5 will have a pupillary distance of  $2\frac{5}{8}$ . The second figure indicates the height of the bridge in sixteenths and the third figure indicates the inclination of the crest of the bridge in sixteenths beyond the plane of lenses. Metric equivalents of all inch dimensions are given in above table, corresponding pupillary distances for other regular eye sizes are listed.

means is provided for quick repair work overcoming the annoyance of having to assemble the tiny parts. If a Fits-U or other coil spring eyeglass is brought in for repair having a broken spring or a stripped thread post screw it becomes a very simple matter to employ a combined coil spring screw and washer thereby saving time and making a better and more finished looking job. This useful repair material is made in gold-filled, rights and lefts being furnished in each dozen pairs. It is essential to specify AOCO make in ordering.



Detail of AOCO Patented Eyewire Joint for Fits-U Eyeglass Frames

Springs Much thought and patient study have entered into the development of the requisite tension of springs used for AOCO finger-piece eyeglasses to obtain that nicety of pressure necessary to perfect fitting. As a result, guards exert a uniform pressure sufficient to maintain them in their correct position





G

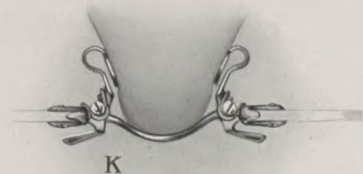


H



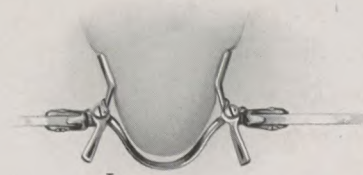
J

Other adjustments in the vertical plane. Easily made with pliers



K

K, showing the nicety of adjustment made possible by the patented AO-Loop construction



L

L, the ordinary type of finger-piece eyeglass and its limited possibilities

called particularly to page 146 on which the Fits-U frame is shown. Any type of rimless mounting can also be supplied with frames when so ordered. The inconspicuous position of the patented eyewire joint should be noted.

**Zylonite Rims** Any type of finger-piece mounting listed on the pages

immediately following may be supplied with zylonite rims (see illustration, page 144) when so ordered in 1, 0, 00, and 000 eye size. Standard thickness, bevel edge, Centex lenses in regular interchangeable sizes can be used.

**Zylonite Guards** will be supplied in the several colors as follows: white, amber, flesh (light pink), light (transparent), and dark (imitation tortoise shell). Dark Zylonite guards will be supplied unless otherwise ordered.

**Material** Small material and parts for repair work such as guards, screws, springs, etc., can be obtained upon short notice from the stocks of representative wholesalers.

without the slightest discomfort to the wearer. Extra springs for repair work may be obtained at moderate cost.

**Inset and Outset** It is frequently desirable to employ Inset or Outset construction in fitting finger-piece eyeglasses, and for this purpose we manufacture the Inset construction to set lenses *out*, and Outset construction to set lenses *in*, as illustrated in Fig. M.

**Finger-piece Frames** The demand being largely for the rimless type of finger-piece eyeglasses, there are many who are not familiar with the construction of the AOCo frames. Attention is

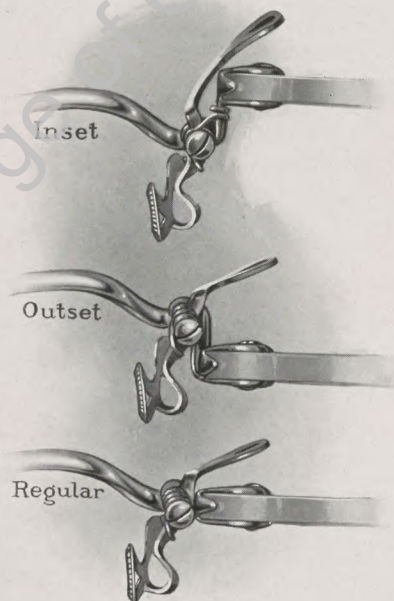


Fig. M

Inset construction, to set lenses *out*  
Outset construction, to set lenses *in*



Fitting Sets and  
Size Assortments

Fitting Sets consisting of one dozen or one-half dozen mountings set with o eye crystal white lenses with catalogue and dimension numbers etched are supplied in the regular dozen and half-dozen assortments. These are in substantially made cloth-covered wooden cases lined with velvet. A dimension card supplied with each set gives full information for ordering. These sets enable the adjuster to select at once the proper size eyeglass for the case he is fitting, and are therefore a very useful as well as an ornamental adjunct to the fitting table.

Unless particular sizes are ordered, regular dozen and half-dozen assortments are usually furnished. These size assortments are as follows:

AOCO one dozen assortment, one pair each. Nos. 412, 422, 512, 522, 533, 612, 622, 633, 712, 722, 733, 744.

AOCO one-half dozen assortment, one pair each. Nos. 412, 422, 512, 522, 622, 633.

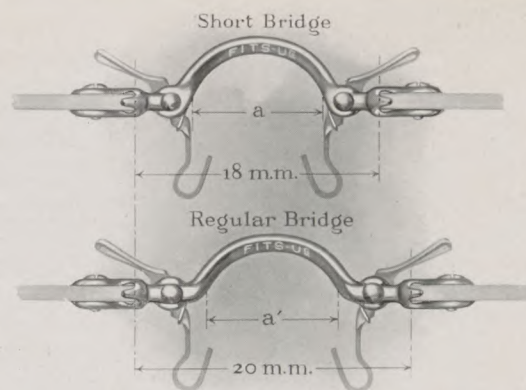
Catalogue Numbers carry only the styles of guards. It is therefore necessary to state also quantity, quality, sizes, and whether rimless, frames, or with zylonite eyes (if frames or zylonite eyes, give size of eye), whether zylonite or sanitary guards (when both are listed).

AOCO Short Bridge for Finger-piece Eyeglasses (Patent applied for.) We have recently made some important improvements in the construction of bridges and have devised a practical form of finger-piece eyeglass having a much shorter distance between lenses for an equal base measurement than the regular form. This difference is graphically shown in the above illustration. It will be noted that a saving of almost 2 mm. on the P. D. of an eyeglass is thus made possible. The use of this short bridge finger-piece now removes the only serious objection that has been brought against this type of eyeglass. A oo eye lens with the new short bridge gives a slightly shorter P. D. than the regular bridge with an o eye lens.

This new short bridge can now be supplied on the regular Fits-U styles when specified on orders. A new system of dimension numbers has been devised for these goods. In this system the P. D. need not be considered in measuring the size of the mounting but instead the distance between lenses varying by 2 mm. in the regular sizes.



AOCO Finger-piece Eyeglass Mounting with Zylonite Rims



Comparative distance between lenses for regular and short bridge (patent applied for) having same base measurement

In the dimension table given on page 145, the system is so simple that it can be easily learned and even more quickly comprehended than the regular AOCO finger-piece bridge system given on page 142.



## AOCO SYSTEM FOR SHORT BRIDGE FINGER-PIECE EYEGLASSES

## CONSTRUCTION OF BRIDGE, PATENT APPLIED FOR

NOTE.—Sizes 1723 to 2266 in the following system approximate in all dimensions their corresponding sizes in the regular 412 to 744 system (see page 142), with the exception of the P. D. In fitting with a regular Fits-U set, add 1.5 mm. to 2 mm. to the length of each lens if *short bridge* is ordered

Dimension Number	Dist. Between Lenses Millimeters	Height Millimeters	Inclination Millimeters	Pupillary Distance			
				i Eye Millimeters	o Eye Millimeters	oo Eye Millimeters	ooo Eye Millimeters
1723	17	2	3	54	55.5	57	58
1733	17	3	3	54	55.5	57	58
1923	19	2	3	56	57.5	59	60
1933	19	3	3	56	57.5	59	60
1955	19	5	5	56	57.5	59	60
2023	20	2	3	57	58.5	60	61
2033	20	3	3	57	58.5	60	61
2055	20	5	5	57	58.5	60	61
2223	22	2	3	59	60.5	62	63
2233	22	3	3	59	60.5	62	63
2255	22	5	5	59	60.5	62	63
2266	22	6	6	59	60.5	62	63

**Explanation:** Knowing the distance between lenses and P. D. of patient being fitted, it is a simple matter to figure the size of lens required. For instance, a 1723 size mounting having 17 mm. distance between lenses fits a nose having P. D. of 57 mm. The difference, 40 mm., is the length of lens required, which is the regular length for oo eye.

as follows:

oo eye - 40 mm. long  
ooo eye - 41 mm. long

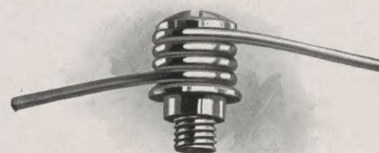
above.

In fitting these sets it is necessary to specify "short bridge".

**890 Shaped Bridge** This construction, as shown in the illustration, is radically different from the usual finger-piece bridge. It is favored by some on account of its resemblance to the regular eyeglass spring. Any AOCO Fits-U eyeglasses can be supplied with this type of bridge when so ordered. The 890 shaped bridge is regularly made in six sizes, two of each size being supplied in every dozen assortment as follows:

Dimension Number	P. D. o Eye Inches Millimeters	Dimension Number	P. D. o Eye Inches Millimeters
24	{ $2\frac{1}{8}$ 57.5	27	{ $2\frac{7}{8}$ 62.5
25	{ $2\frac{1}{8}$ 59.5	28	{ $2\frac{1}{8}$ 64.
26	{ $2\frac{1}{8}$ 60.5	30	{ $2\frac{1}{8}$ 65.5

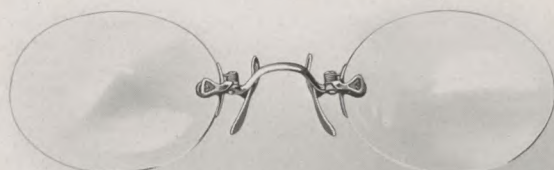
Fitting sets of the above Frames and Mountings with Etched Lenses supplied when ordered.



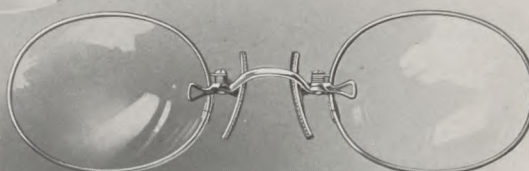
AOCO Combined Spring and Screw  
for Finger-piece Eyeglasses  
(Patented)



(A)



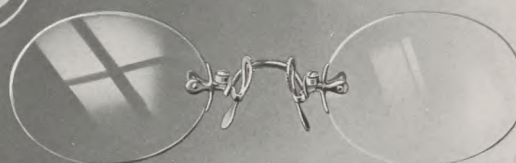
A



B



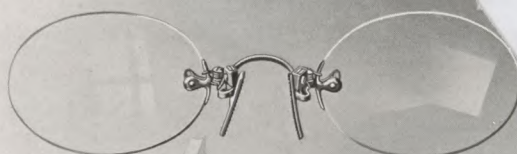
C



D



E



G



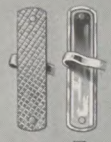
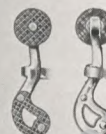
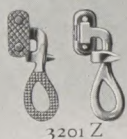
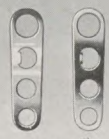
H

## REGULAR AND SPECIAL STYLES OF AOCO FINGER-PIECE EYEGLASSES

- |  |   |
|--|---|
| A. Fits-U Eyeglass Mounting, regular style. Patented.  | E. Fits-U Eyeglass Mounting, with No. 890 style bridge, see page 145. Patented.   |
| B. Fits-U Eyeglass Frame, regular style. Patented.   | F. Schwab Eyeglass Mounting. Patented.  |
| C. Fits-U Eyeglass Mounting, with post screws placed behind the lenses, making a less conspicuous mounting, having an exceptionally narrow pupillary distance. Patented. | G. Fits-U Eyeglass Mounting, with arms so constructed that any regular styles of offset guards can be used. Catalogue No. 3191. Patented. |
| D. Fits-U Eyeglass Mounting, with detachable flat spring instead of the usual coil spring.   | H. Fits-U Eyeglass Mounting, with Zylonite rims. Patented.  |

A full description of AOCO Finger-piece Eyeglasses will be found on pages 139 to 148, inclusive.



3101 S  
Rigid, San.3101 Z  
Rigid, Zyl.3123 S  
Rocking, San.3123 Z  
Rocking, Zyl.3103 S  
Rocking, San.3103 Z  
Rocking, Zyl.3111 S  
Rigid, San.3111 Z  
Rigid, Zyl.3113 S  
Rocking, San.3113 Z  
Rocking, Zyl.3111 Z5  
Rigid, Zyl. 5MM3151 S  
Rigid, San.3151 Z  
Rigid, Zyl.3161 S  
Rigid, San. Pad3161 Z  
Rigid, Zyl. Pad3171 Z  
Rigid, Zyl. Pad3201 Z  
Schwab3301 S  
Rigid, San.3303 S  
Rocking, San.6101 S  
Rigid, San.6101 Z  
Rigid, Zyl.

## FITS-U AND OTHER FINGER-PIECE EYEGLASSES

CATALOGUE NUMBER				DESCRIPTION			
Sanitary	Rigid	Zylonite	Sanitary	Rocking	Zylonite		
3101 S	-	3101 Z	3123 S	-	3123 Z	-	Fits-U
			3103 S	-	3103 Z	-	Fits-U
3111 S	-	3111 Z	3113 S	-	3113 Z	-	Fits-U
		3111 Z <sup>b</sup>					Fits-U
3151 S	-	3151 Z					Fits-U
3161 S	-	3161 Z					Fits-U
		3171 Z					Fits-U
3191 S	-	3191 Z					Fits-U
		3201 Z					Schwab
3301 S	-	-	3303 S	-	-	-	"P. S." Perforated
6101 S	-	6101 Z					Pearl

All above styles, except Pearl Eyeglasses, are made in 10k and 14k gold and 12k and 14k gold-filled. Pearl Eyeglasses are made in 10k gold-filled only.

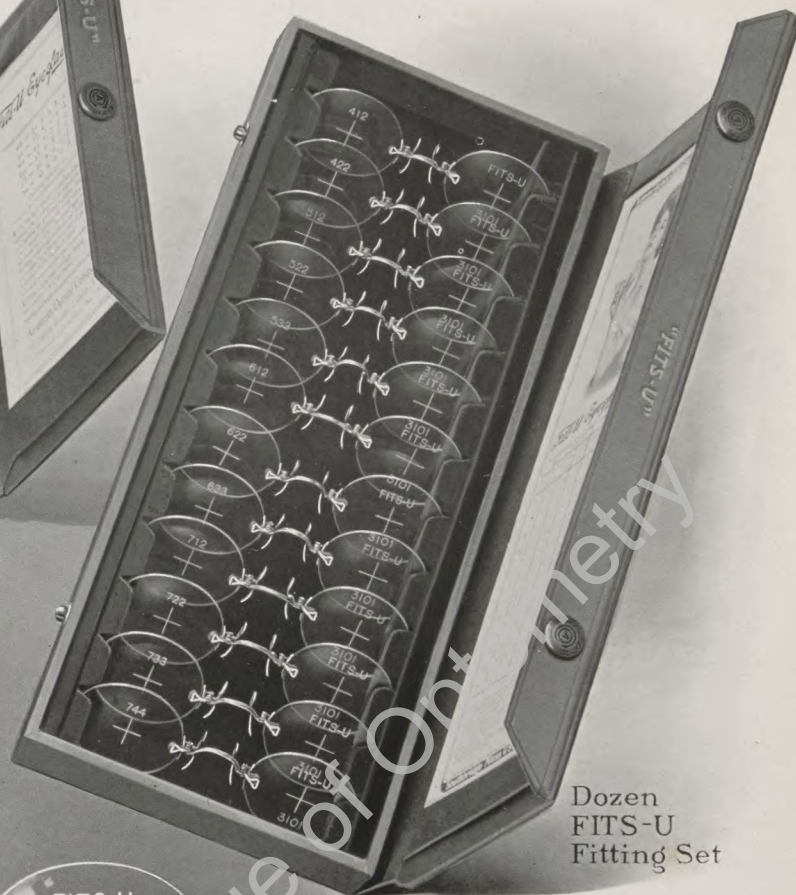
In ordering, give quantity, quality, catalogue number, sizes, strap width (if rimless), eye size (if frames). For sizes and other information, see pages 141 to 148, inclusive. For No. 3191 style, see Fig. G, page 146.

Genuine Fits-U Eyeglasses have the name stamped in the bridge.

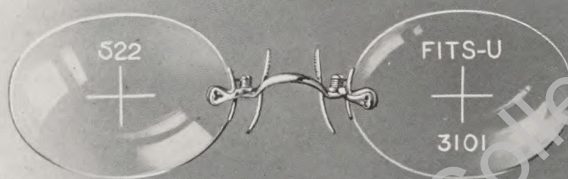




Half Dozen  
FITS-U Fitting Set



Dozen  
FITS-U  
Fitting Set



FITS-U Fitting Set  
(Closed)

FITS-U FITTING SETS

For descriptions and size assortments, see pages 144 and 145



design and appearance of spectacles and eyeglasses is largely if not wholly due to our products being taken as the models.

*Sizes* We recommend a careful study of the systems and measurements for styles and sizes, as in ordering it is quite essential that all specifications be given explicitly. Measurements should be taken and written in the metric system, the sizes being expressed in multiples of a millimeter.

*Metals* Our aim is always to produce these parts in the various metals for which there is a reasonable demand, and those styles and metals most generally called for are carried in AOCo stock. Our list of metals from which material may be manufactured includes gold, silver, gold-filled, steel, alumnico, alumnica, German silver, Roman alloy and regaloid. In ordering material it is necessary to state the metal desired; if gold, the karat, and if gold-filled, the karat and quality.

*Patented Styles* Much of the special material listed on the following pages is made under patents owned or controlled exclusively by the American Optical Company. These patented structural details very frequently are closely imitated by other makers, although the deception can be readily discovered. To avoid annoyance from such causes it is important to specify AOCo manufacture in ordering any goods shown or listed in this catalogue and to be sure that you receive only the genuine.

Lists of material carried in AOCo stock will be supplied free upon request.



Stock Room, Material Department



## TEMPLES

The characteristic difference between many types of spectacles lies wholly in the construction or design of the temples. In our efforts to refine the regular forms of temples we have not only made improvements in shape, weight and construction, but we have developed many special structural features in temple manufacture for each of which special advantages are claimed.

All styles of AOCo temples are given here and comprehensively illustrated. These goods are made in all metals for which there is a demand.

*Straight Temples* are largely used upon "C" Bridge spectacles. Their principal advantage lies in the fact that straight temple spectacles may be put on and taken off easier than any other style. Consequently, these styles are a great comfort and convenience for persons who require glasses only for reading.

*Half-riding Temples* These styles are a compromise between straight temples and riding temples. They are recommended for those who find it difficult to retain straight temple spectacles upon the face. They are also largely used for Trial Frames, see Trial Set Section.

*Riding Temples* are used upon the greater proportion of spectacles sold. They are most practical for constant wear, can be comfortably fitted and present the lightest and most desirable appearance. The Cable (C) and Half Cable (HC) forms of Riding temples are slightly heavier in gauge than their corresponding solid styles, but this is more than offset by the additional comfort they provide. For even greater ease and comfort the Comfort Cable (CC) form of Riding temple is most popular.

*Measurement of Temples* It is customary and, therefore, our rule to measure the length of a temple from its extreme ends.

### REGULATION TEMPLE LENGTHS

STYLE	SHORT			REGULAR			LONG			EXTRA LONG	
	MM.	INCH		MM.	INCH		MM.	INCH		MM.	INCH
Straight	133	(5 $\frac{1}{4}$ )	-	140	(5 $\frac{1}{2}$ )	-	146	(5 $\frac{3}{4}$ )	-	152	(6)
Half-riding	133	(5 $\frac{1}{4}$ )	-	140	(5 $\frac{1}{2}$ )	-	152	(6)	-	159	(6 $\frac{1}{4}$ )
Riding	140	(5 $\frac{1}{2}$ )	-	152	(6)	-	165	(6 $\frac{1}{2}$ )	-	171	(6 $\frac{3}{4}$ )
Short O.T. }											
Short P.T. }				54	(2 $\frac{1}{8}$ )						
Turn Pin { Butt	105	(4 $\frac{1}{8}$ )	-	111	(4 $\frac{3}{8}$ )	-	117	(4 $\frac{5}{8}$ )	-	124	(4 $\frac{7}{8}$ )
Tip	67	(2 $\frac{5}{8}$ )	-	67	(2 $\frac{5}{8}$ )	-	67	(2 $\frac{5}{8}$ )	-	67	(2 $\frac{5}{8}$ )

Inch equivalents are given above for comparison. Orders should always be written in mm.

*Short* Unless other lengths are designated, all orders for spectacles which specify "for children" are supplied with short length temples.

*Regular* Regular length temples supplied on all spectacles in any size of eye except when order specifies "for children" or when particular length is designated.

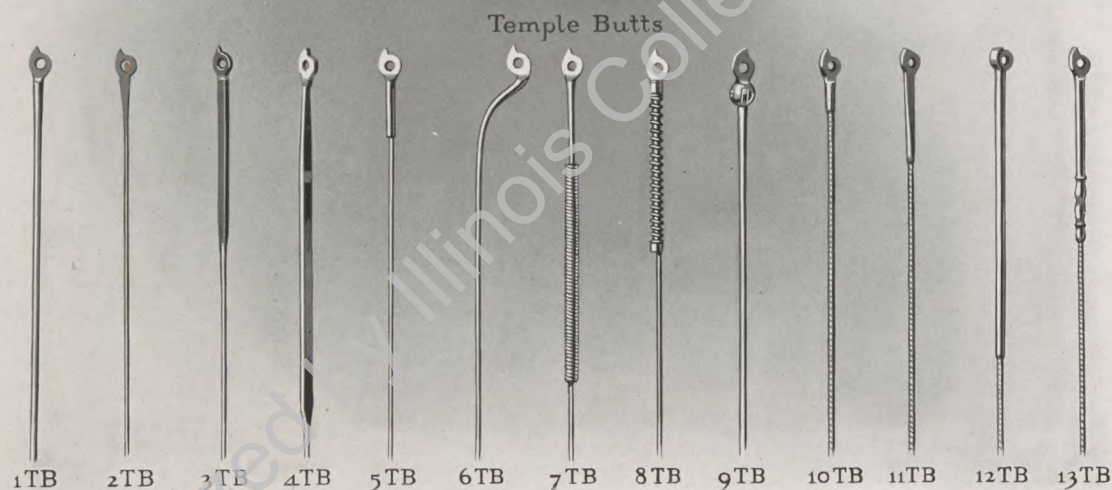
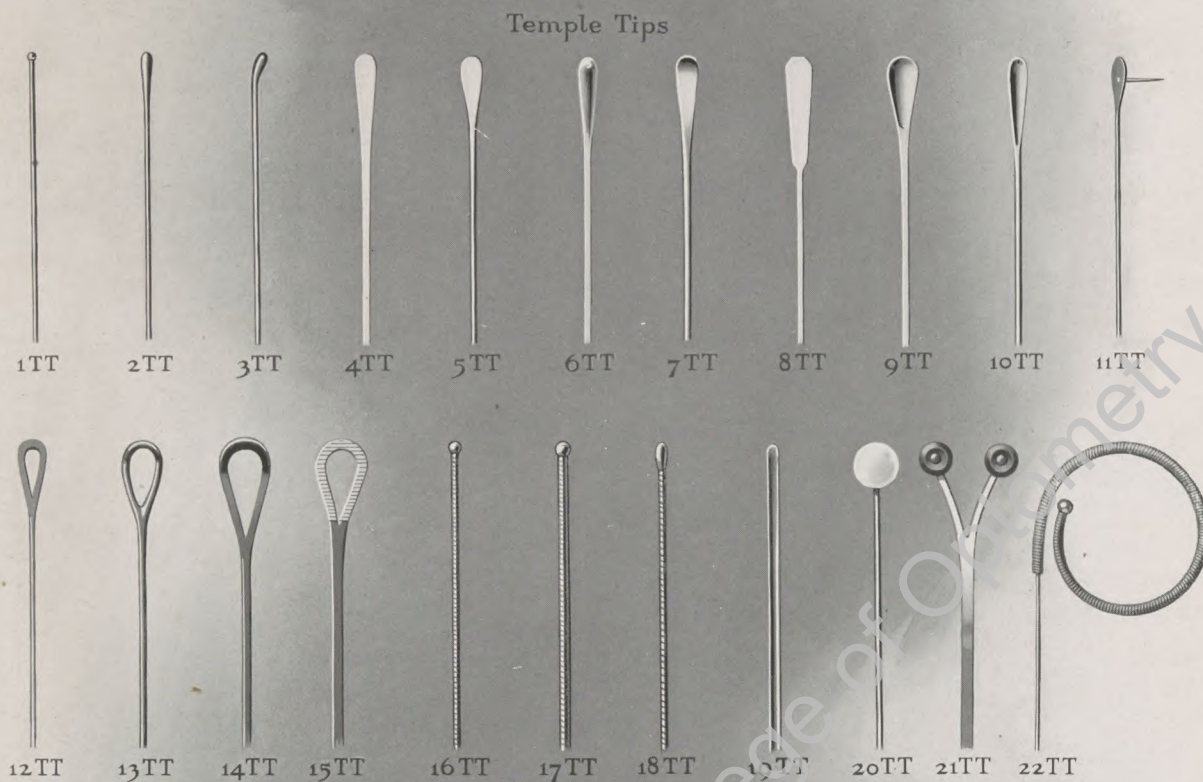
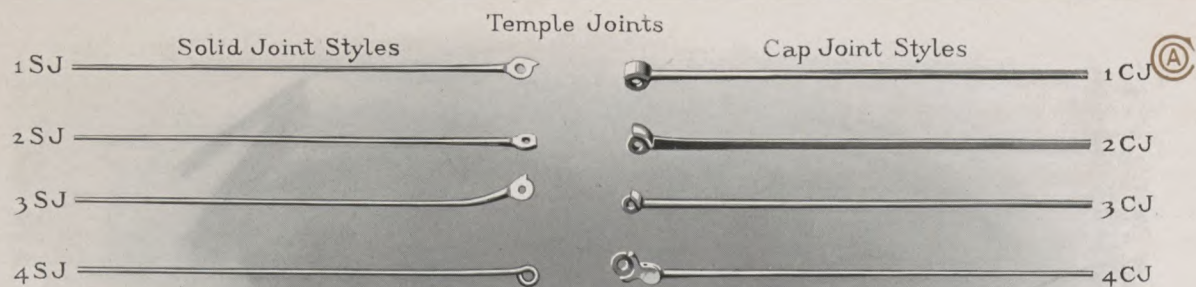
*Long and Extra Long* These are special lengths and are supplied only when so ordered.

### TEMPLE JOINTS

*AOCo Temple Joints* The temple joint is the end of the temple butt where it forms a connection with the end piece. There are two distinct styles, classed as Solid Joints and Cap Joints.

*Solid Joint* The Solid or "Split" Joint, as it is frequently termed, is a very simple construction and is largely preferred by the American trade. The *Regular* form, 1 S.J., is shown in the cut. The *Invisible*, 2 S.J., for use with invisible end piece, and the *Mansfield (patented)*, 3 S.J., for use in the Mansfield end piece (see page 171), are modifications of the regular form. The *Special* form, 4 S.J., is used on the lower qualities of German silver and Roman alloy goods, which are designated throughout this catalogue as having the Special end piece.





STYLES OF TEMPLE JOINTS, TIPS AND BUTTS

See description on opposite and following pages



Cap Joint While distinctly an American type, this style has of late years been in greater demand in Europe than in America, although it is used here on some styles of gold frames. It is characterized by a cap either riveted on or swaged up from the solid wire, which hides the connection or joint when worn. The *Regular* style, 1 C.J., has a flat cap, while the *Ball* style, 2 C.J., has a rounded or ball cap. What is sometimes known as the *English* style, 3 C.J., has a small cap fitted well back toward the temple butt, and is a very practical and desirable construction. The *Reversible (patented)*, 4 C.J., is provided with a double-sided cap for reversible temple frames, as shown.

### TEMPLE TIPS AND BUTTS

Numbers below refer to illustration on preceding page. In ordering special construction, details should be explicitly given to avoid misunderstanding.

#### TEMPLE TIPS

- |                    |                        |                              |
|--------------------|------------------------|------------------------------|
| 1 TT Ball Tip      | 9 TT Spoon Tip         | 16 TT Cable Ball Tip         |
| 2 TT Pear Tip      | 10 TT Narrow Spoon Tip | 17 TT Comfort Cable Ball Tip |
| 3 TT Bent Pear Tip | 11 TT Pin Tip          | 18 TT Cable Pear Tip         |
| 4 TT Flat Tip      | 12 TT Small Open Tip   | 19 TT "U. S." Tip (Patented) |
| 5 TT Flat Pear Tip | 13 TT Medium Open Tip  | 20 TT Zylonite Ball Tip      |
| 6 TT Swelled Tip   | 14 TT Large Open Tip   | 21 TT Padded Tip             |
| 7 TT Bent Tip      | 15 TT Short Open Tip   | 22 TT Spiral Tip             |
| 8 TT Paddle Tip    |                        |                              |

#### TEMPLE BUTTS

- |                                |                              |                             |
|--------------------------------|------------------------------|-----------------------------|
| 1 TB Round Butt                | 6 TB Offset Butt             | 10 TB Stub Cable Butt       |
| 2 TB Flat Butt                 | 7 TB Spiral Butt             | 11 TB Solderless Cable Butt |
| 3 TB Square Butt               | 8 TB Compensating Butt       | 12 TB Stump Cable Butt      |
| 4 TB Half Flat Butt            | 9 TB Adjustable Angular Butt | 13 TB Fancy Cable Butt      |
| 5 TB Revolving Butt (Patented) |                              |                             |

### FORMS OF TEMPLES

On the opposite page we show a most complete range of regular and special forms of AOCo Temples. From this illustration a general idea may be gained of the very extensive line of temples that can be supplied. When it is considered that the styles shown may be furnished in various metals, forms of temple joints, tips and butts, and in several lengths and weights, the multiplicity of possible combination seems almost unlimited. In ordering temples it is necessary to be very explicit as to style, length, and metal desired, to avoid the possibility of misunderstanding. Unless otherwise ordered, regular lengths are supplied, see page 152.

#### FORMS OF RIDING TEMPLES

- |                           |                                   |                    |
|---------------------------|-----------------------------------|--------------------|
| 1 T Riding                | 5 T Half Cable Half Flat          | 9 T Twisted        |
| 2 T Cable (C)             | 6 T Heavy Auto Cable              | 10 T Spiral Shield |
| 3 T Comfort Cable (CC)*   | 7 T Heavy Auto Cable with Ferrule | 11 T Spiral Tip    |
| 4 T Half Cable Half Round | 8 T Rubber Covered Auto Riding    | 12 T Grab          |

#### FORMS OF HALF-RIDING TEMPLES

- |                                     |                  |
|-------------------------------------|------------------|
| 13 T Half-riding Turn Pin with Stop | 14 T Half-riding |
|-------------------------------------|------------------|

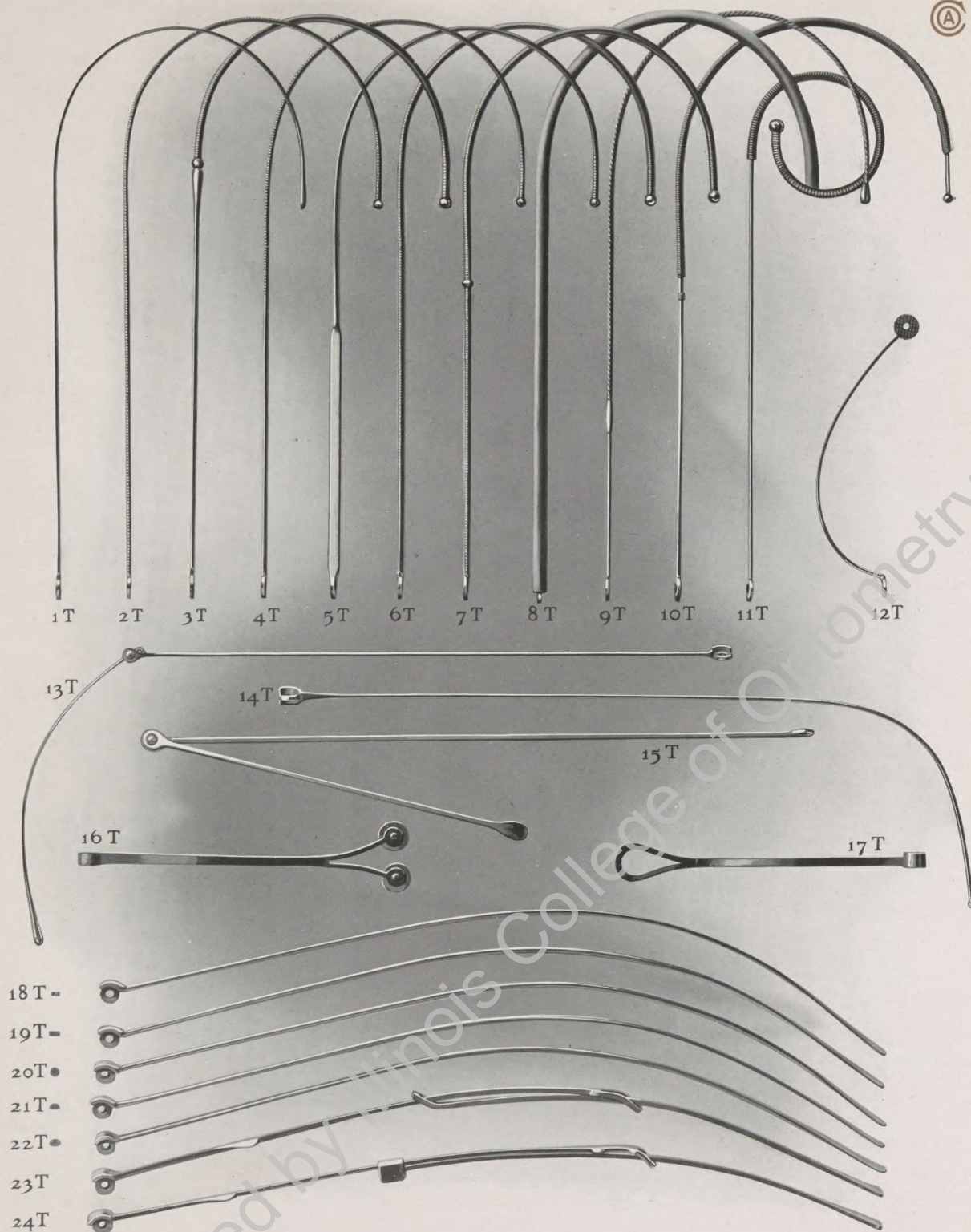
#### FORMS OF STRAIGHT TEMPLES

- |                       |                  |                 |
|-----------------------|------------------|-----------------|
| 15 T Turn Pin         | 19 T Flat, Heavy | 22 T Oval       |
| 16 T Short Padded Tip | 20 T Round       | 23 T Loop Slide |
| 17 T Short Open Tip   | 21 T Half Round  | 24 T Band Slide |
| 18 T Flat             |                  |                 |

In ordering temples only, it is necessary to specify the style of temple, the metal and quality in which it should be supplied, the weight, length, style of tip and butt, and form of temple joint. It is desirable to state also the catalogue number of the goods in which the temples are to be used. If rimless end pieces are wanted attached to temples, order should be written "temples complete".

\*Made in two weights, regular, Comfort Cable and light, Junior Comfort.





STYLES OF SPECTACLE TEMPLES

See description on opposite page





1H



2H



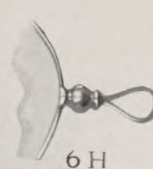
3H



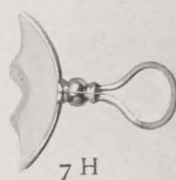
4H



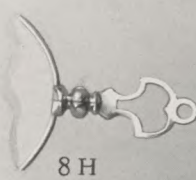
5H



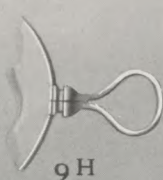
6H



7H



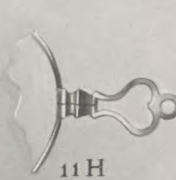
8H



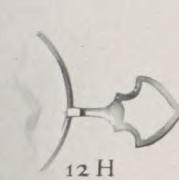
9H



10H



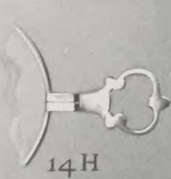
11H



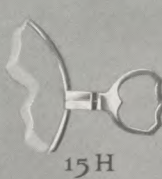
12H



13H



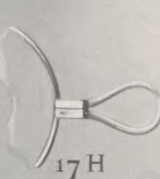
14H



15H



16H



17H



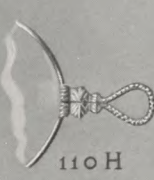
18H



19H



104H



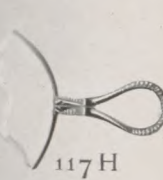
110H



114H



116H



117H



118H



120H



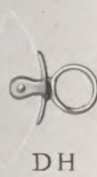
AH



BH



CH



DH



EH



FH



GH



KH



MH

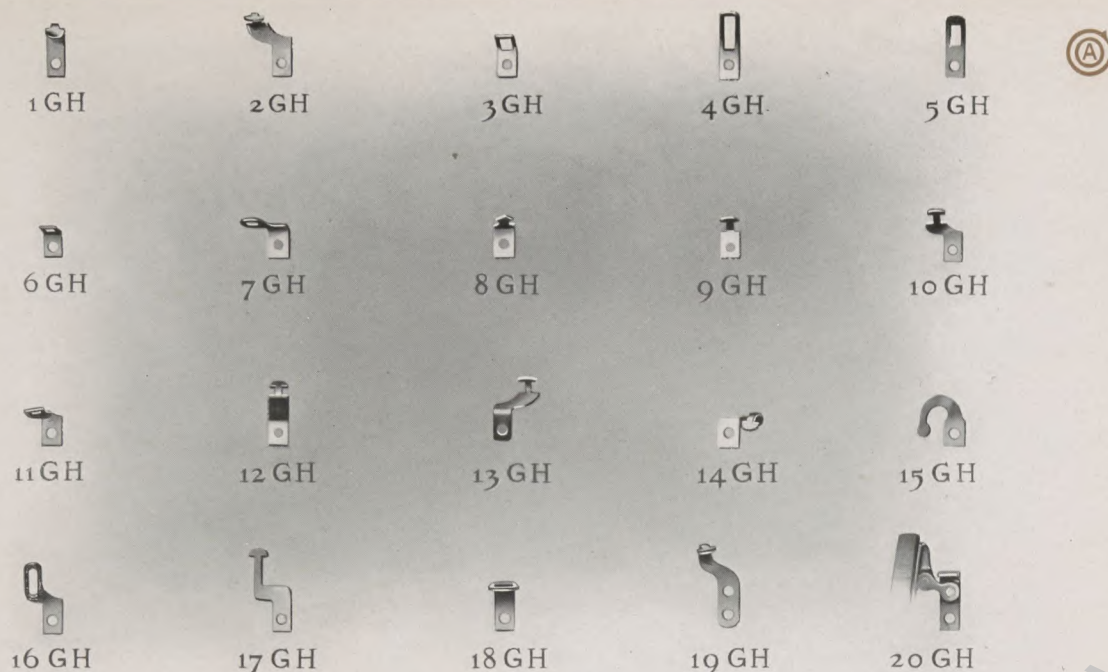


NH

EYEGLOSS HANDLES

See description on opposite page





### HANGERS

We have attempted to show above the various regular forms of hangers now employed on AOC Co eyeglasses. Modifications of these forms are made upon special styles, but the demand for special hangers only is so small as not to warrant mention or illustration here.

### HANDLES

The illustration on opposite page shows the complete styles for AOC Co eyeglass handles. The ring for Cord (1 H) and the Ball Ring Handle (5 H) styles are coming more than ever into general use for the better grades of eyeglass frames, and there is a corresponding decrease in the demand for the fancy styles. Throughout the catalogue we have indicated the styles regularly furnished on Eyeglass Frames carried in stock. Where other styles are desired they are necessarily considered as special and the goods must be made up from the very beginning, causing delays which might be avoided by ordering regular goods. The engraved styles of eyeglass handles are supplied only on gold goods.

In ordering goods with any particular style of handle, give catalogue number of handle as well as number of goods.

Rimless handles are never furnished with eyeglass mountings unless specially ordered. Grab front frames and mountings are regularly furnished with handles except medio styles of mountings.

### EYEGLOSS SPRINGS

The illustration on the page following shows the various forms of eyeglass springs commonly used on eyeglass frames and mountings and supplied in all metals. Unless otherwise ordered we regularly supply oval\*, full width, on plane styles.

Combinations of any of the following details may be ordered:

Stock	Construction	Shape	Inclination
Flat	Full width	Regular (R)	On Plane
Oval	Diminished	Adjustable Eyeglass (C)	Tilting
Grooved	Reduced	Hoop (H)	Offset
	Swelled	Straight Top (K)	Grecian
		European (E)	

In ordering give catalogue number of goods, quality, as well as details for springs, such as stock, construction, shape, inclination, length.

\*Grecian Springs are regularly supplied flat instead of oval.





## EYEGLOSS SPRINGS

### REGULATION SPRING LENGTHS

Shape	Length for Eyeglass Frames	Length for Rimless Eyeglasses
Regular (R)	54 mm.	54 mm.
Adjustable Eyeglass (C)	57 mm.	51 mm.
Hoop (H)	51 mm.	51 mm.
Straight Top (K)	54 mm.	54 mm.
European (E)	See pages 82, 104 and 120	

Above lengths are regularly supplied unless otherwise ordered.

Regular (R) Springs Regularly supplied on all eyeglasses except adjustable eyeglasses, bar spring eyeglasses and other special styles.

Adjustable Eyeglass (C) Springs Regularly supplied on adjustable eyeglasses and similar styles.

Hoop (H) Springs Supplied only when order so specifies.

Straight Top (K) Springs Supplied only when order so specifies.

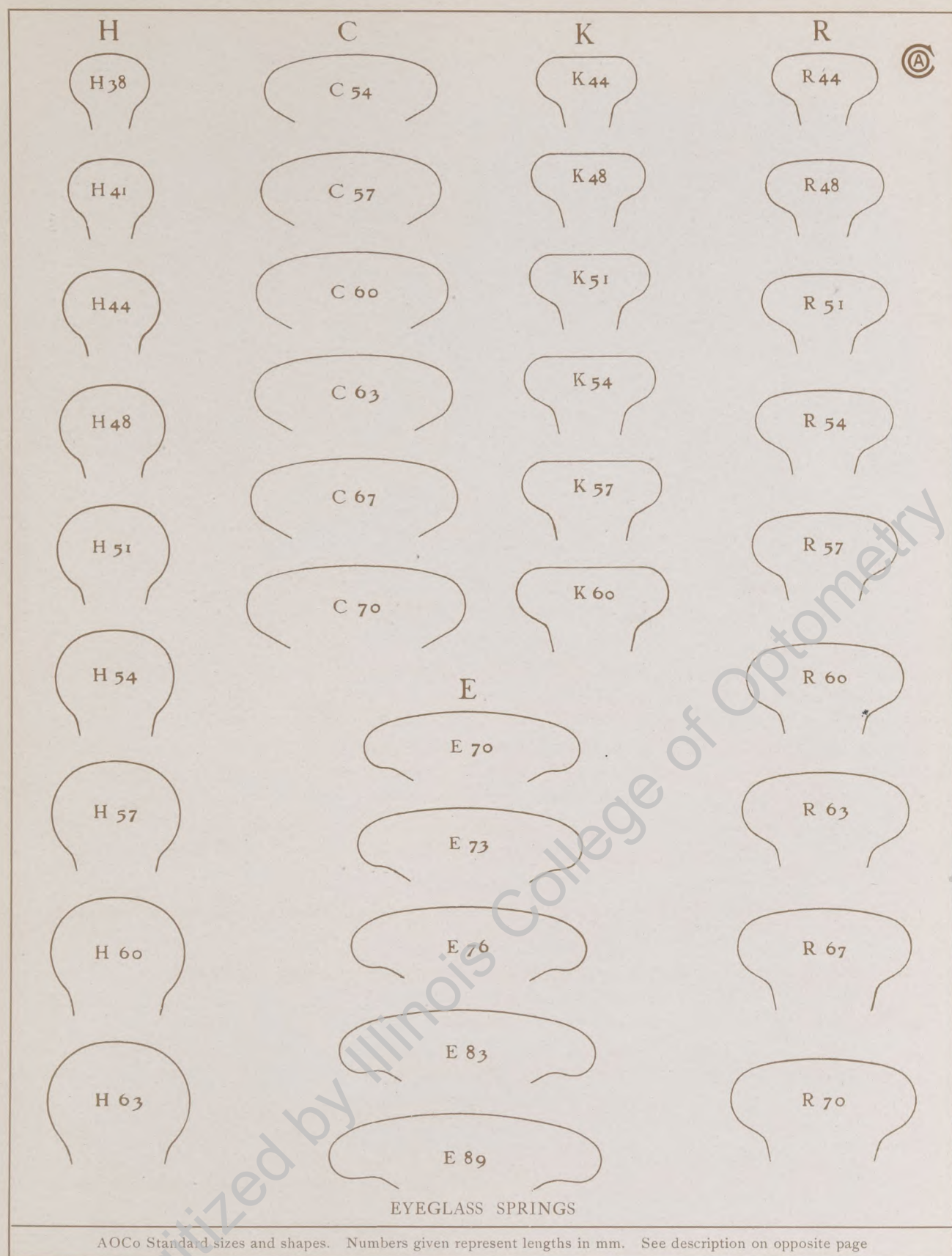
European (E) Springs Regularly supplied on European Style Adjustable Eyeglasses.

The combination of letter and number denotes shape and length in millimeters.

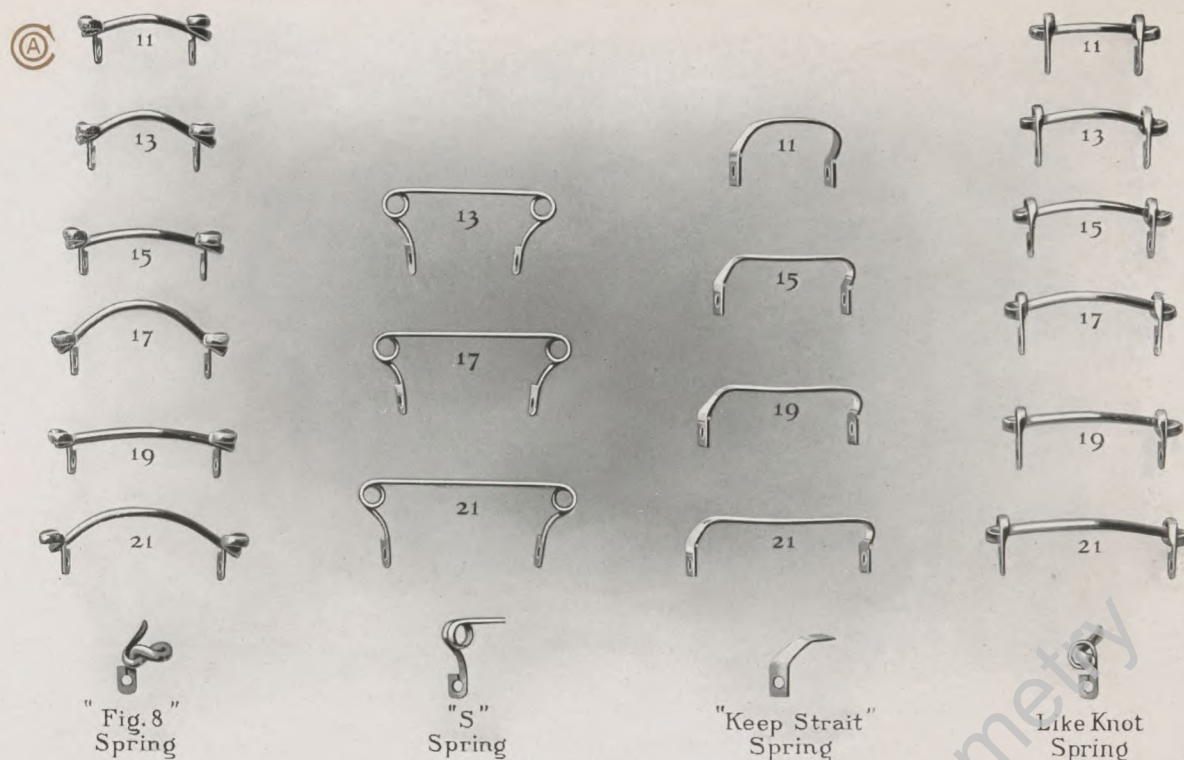
In ordering springs other than regulation lengths this system should be employed, see opposite page.

Kelle Patent Construction for Eyeglass Springs, see description and illustration, pages 166 and 172.









### EYEGLOSS SPRINGS

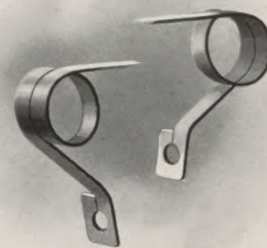
"Figure 8" Springs (Patented.) As may be noted in the illustration, this form of spring gains its resiliency from the "8" shaped loops at either side. It is quite stiff and at the same time flexible enough to allow the guards to be spread easily to put on or take off. Made in six regular sizes as indicated, the number denoting distance in mm. between posts.

Like Knot Springs (Patented.) This style is somewhat similar in character to the "Figure 8". The spring loops or bends are carried off to either side instead of forward. Also made in six sizes as shown.

"S" Springs (Patented.) The form of this spring is similar to the straight top (K) spring. The extra turn in the wire adds greatly to its flexibility. Made regularly in three sizes, viz.: 13, 17 and 21 mm. between posts.

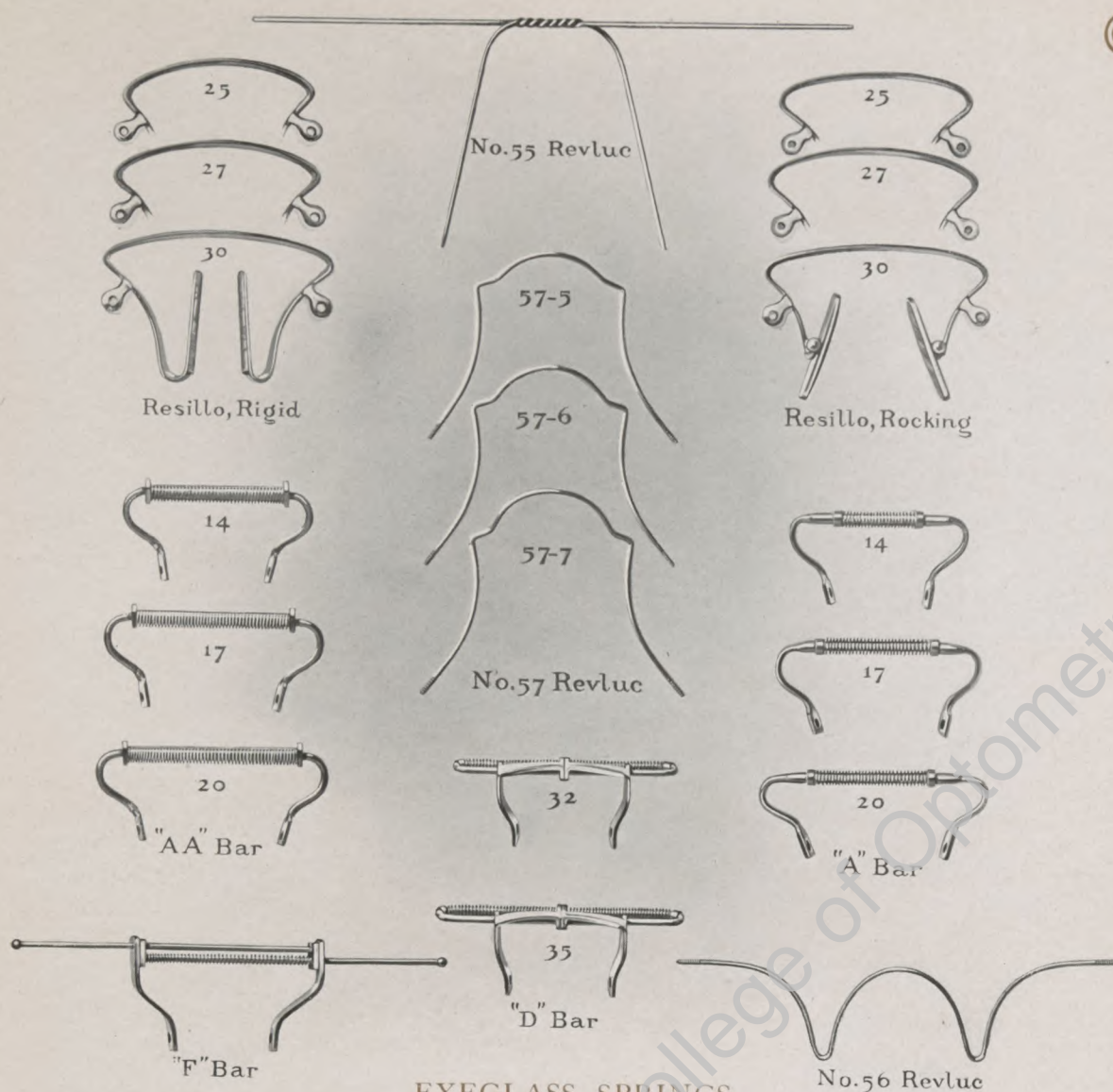
"Keep Strait" Springs (Patented.) When worn this spring is practically invisible from the front as only the thickness of the metal is apparent. The construction is particularly simple and neat, and for this reason the "Keep Strait" has always been very popular. Center of spring is reduced as shown in profile. Regularly made in four sizes, viz.: 11, 15, 19 and 21 mm. between posts.

AOCO Patented Loop End for Springs. Attention is called to our Patented Loop End as furnished on "S" Springs, "Figure 8" Springs and Like Knot Springs. This improvement allows the construction of eyeglass springs or guards from round or narrow oval wire or flat stock with the end made full width, completely filling the box of the stud and overcoming the difficulty of firmly securing such parts in place without liability of rocking or weaving.





©



## EYEGLOSS SPRINGS

*Revluc* Numbers 55 and 56 of the Revluc styles are supplied in one size only as may be noted in above illustration. The number 57 style is supplied in three heights of crest, viz.: 5, 6 and 7 mm. In ordering the 57 style springs alone it is necessary to state sizes desired.

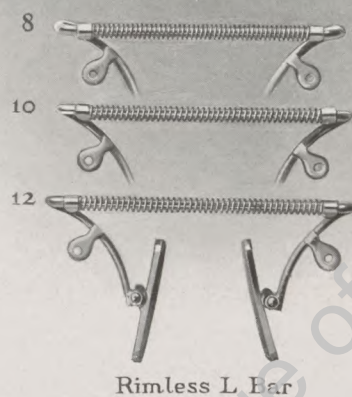
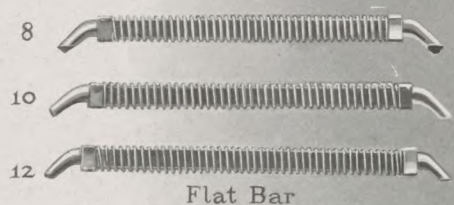
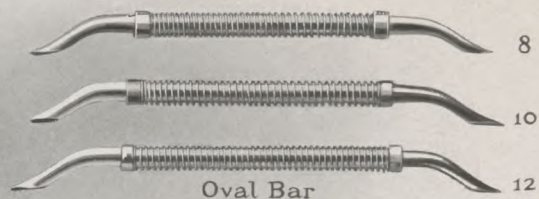
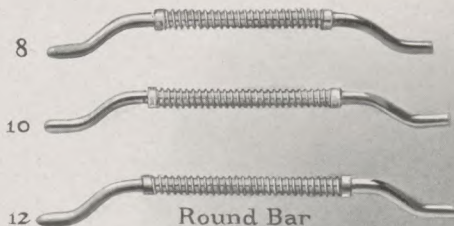
*Resillo* This is a recently devised form of complete eyeglass mounting for which there is considerable demand in the English and Continental trade. The springs continue down and the ends are formed integral with, or attached to, the guards in the Rigid and Rocking styles respectively. There are three sizes regularly supplied, viz.: 25, 27 and 30 mm., indicating the extreme width at bends of spring, measured inside.

*"AA" Bar, "A" Bar* Same as illustrated. Supplied in three sizes, measuring 14, 17 and 20 mm. between posts.

*"D" Bar* As shown in illustration (rear view), spring bar is offset and passes across in front of lenses. Made in two sizes which measure 32 and 35 mm., extreme width of bar.

*"F" Bar* Sometimes known as the Farley bar spring. Made one size only, same as illustration.



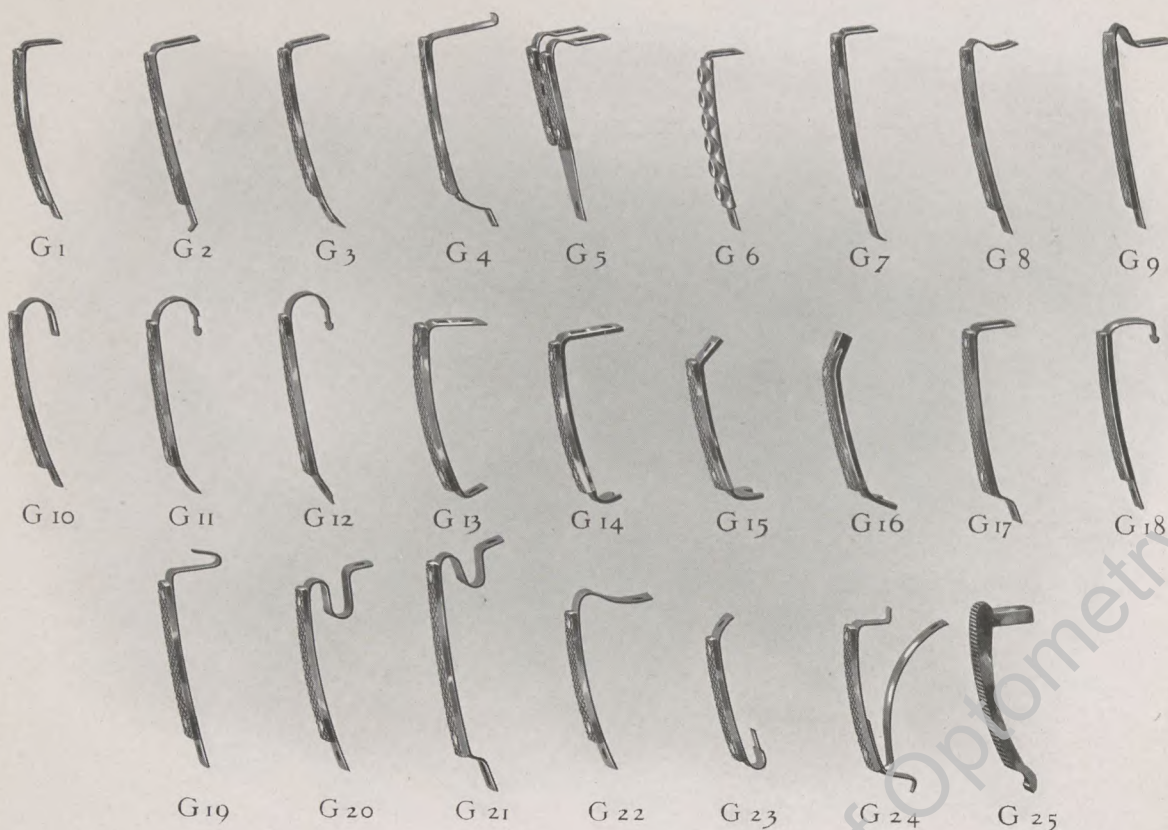


## EYEGLOSS SPRINGS

Bar Springs The manufacture of Bar Spring styles in Frames and Frameless Eyeglasses is an important branch of our eyeglass business. Our line is most complete in this respect. On pages 55, 64, 79, etc., will be found the complete goods with springs of this type, giving their respective catalogue numbers for convenience in ordering. The above illustration shows the sizes in which each style is supplied.

All styles shown above, viz.: Round Bar, Oval Bar, Flat Bar, Light or L Bar, Rimless L Bar and including Triple Bar (not shown) are supplied in three sizes, measuring respectively 8, 10 and 12 mm. between guards.





### EYEGLOSS GUARDS

Adjustable, Solid and Solid Adjustable Styles

All guards listed below are shown in the above illustration. These comprise a complete line of the Adjustable, Solid and Solid Adjustable Guards, for which there is a steady demand. In referring to styles, the system of numbering will be found a great convenience. These guards are made in all metals the demand for which warrants their manufacture.

Adjustable Styles Nos. G 1, G 2, G 3, G 4, G 5, G 6 (Bailey Rubber pat.), G 7, G 8, G 9, G 10, G 11, G 12, G 17, G 18, G 19.

Solid Styles Nos. G 13, G 14, G 15, G 16 (for C. S. S. S.), G 25 (zylonite only).

Solid Adjustable Styles Nos. G 20, G 21, G 22.











Above styles can be supplied in cork or zylonite except Nos. G 5 and G 25, which are supplied in zylonite only.

Guards for *Tin U* and other finger-piece eyeglasses are shown on page 147.



# EYEGLOSS GUARDS

Wells Offset Styles

POSITION OF ARM	WIDTH OF ARM	LENGTH OF BLADE							
			A	B	C	D	E	BY	CY
 CENTER	Reduced	Regular	A 1	B 1	C 1	D 1	E 1	BY 1	CY 1
	Reduced	Short	AO 1	BO 1	CO 1	DO 1	EO 1	BYO 1	CYO 1
	Full	Regular	AA 1	BB 1	CC 1	DD 1	EE 1		
	Full	Short	AAO 1	BBO 1	CCO 1	DDO 1	EEO 1		
 LOW	Reduced	Regular	A 2	B 2	C 2	D 2	E 2	BY 2	CY 2
	Reduced	Short	AO 2	BO 2	CO 2	DO 2	EO 2	BYO 2	CYO 2
	Full	Regular	AA 2	BB 2	CC 2	DD 2	EE 2		
	Full	Short	AAO 2	BBO 2	CCO 2	DDO 2	EEO 2		
 HIGH	Reduced	Regular	A 3	B 3	C 3	D 3	E 3	BY 3	CY 3
	Reduced	Short	AO 3	BO 3	CO 3	DO 3	EO 3	BYO 3	CYO 3
	Full	Regular	AA 3	BB 3	CC 3	DD 3	EE 3		
	Full	Short	AAO 3	BBO 3	CCO 3	DDO 3	EEO 3		

## System of Numbering

In the above table for Wells offset guards it will be noted that the angle is indicated by a letter, as C, and the addition of O, as CO, designates short blade. A repetition of the angle letter, as CC, designates full width arm instead of reduced as regularly supplied. The figure following the letter indicates the position of arm, viz.: 1, center; 2, low; 3, high. All forms of Wells offset guards should be ordered by this system. C 1 Guards, Cork, are regularly supplied unless otherwise ordered.

## Styles of Wells Offset Guards

The following illustrations show some of the various styles of arms and blades which can be supplied in the above system :

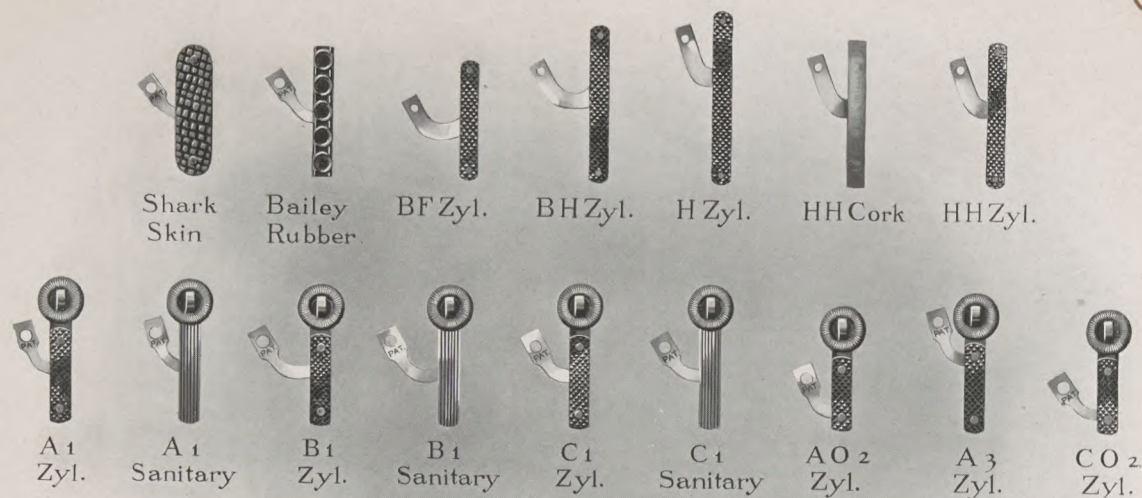


**Cork Guards** are supplied unless otherwise ordered and are made with double-riveted arm unless ordered "one-piece". For the latter constructions an extra charge is made in gold.

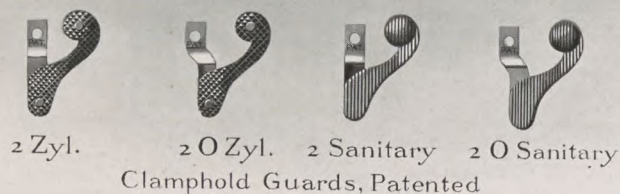
**Zylonite Guards** are always made in one-piece construction except when angles are ordered for which we have no one-piece dies, in which case the double-riveted construction is supplied. Wide zylonite blades, 3.5 mm. and extra wide, 5 mm. supplied only when so ordered. Zylonite blades are supplied for these or any styles of AOCo guards in any of the following colors: light (transparent effect), white (pure white), amber, flesh (light pink), dark (imitation shell) and black. Dark zylonite supplied unless otherwise ordered.

**Sanitary Guards** Any style of Wells offset guards can be supplied with corrugated bearing surface, or Sanitary, as it is called. This construction is particularly recommended for its cleanliness and its enhanced appearance.





U. S. Guards, Patented



Clamphold Guards, Patented

## EYEGLOSS GUARDS

## Offset Styles

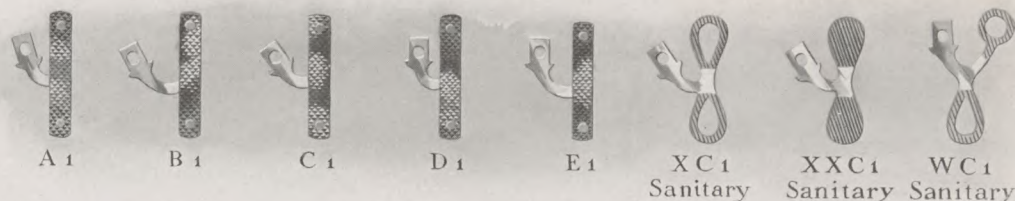
Shark Skin Guards (Patented.) Shark Skin facing is particularly desirable for guards in preventing the eyeglasses from slipping when the nose has a tendency to be oily or perspiring. In adjusting Shark Skin Guards careful attention is necessary to see that the pressure is uniformly distributed over the entire surface of the blade, with the exception that it should be slightly tighter at the top. The pressure should be very light and the guard so adjusted to engage the fleshy part of the nose as high as the guards will permit. The edges of the Shark Skin blades may be bevelled off with a file and if necessary the surfaces of the blades may be toned down with emery paper. Shark Skin blades will be supplied on any style of Wells Offset Guards, 5 mm. wide, unless otherwise ordered.

Bailey Rubber Guards (Patented.) These guards have facings of specially prepared rubber made with tiny suction cups which cling to the nose, very little pressure being necessary. Supplied in any angle of Wells Offset Guards, regular width. See also G 6, page 163.

U. S. Guards (Patented.) These are a modification on the regular forms of Wells Offset Guards, the feature of their construction being the employment of a circular bearing pad which, being loosely connected to the back, allows a slight rocking motion and a vertical sliding motion, causing it to conform to the shape of the nose and automatically adjust itself in a comfortable position.

Clamphold Guards (Patented.) The design of the Clamphold Guard makes it very desirable from the standpoint of appearance as well as comfort. These guards are made in two styles, regular and offset, numbered 2 and 2-O respectively, supplied sanitary or zylonite as ordered.





## EYEGLOSS GUARDS

### Offset Styles

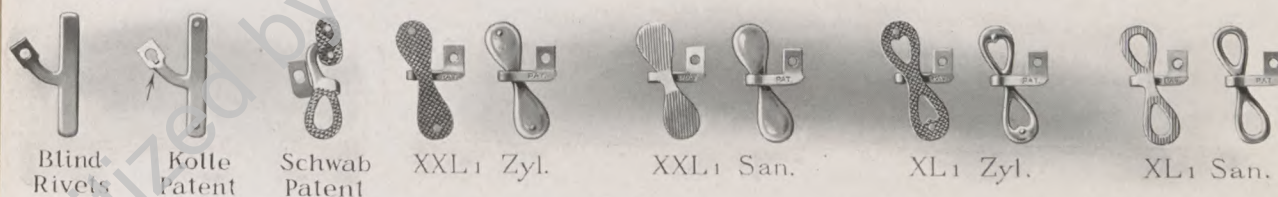
**Bonschur Locking Shoulder** (Patented.) This is a very important feature which we are able to supply on many of our regular styles of Wells Offset Guards and also on a number of other styles of offset guards, some of these being shown in the accompanying illustration. Briefly, the principle of the Locking Shoulder (usually designated B. L. S.) is that the two tiny shoulders rest against the lower edges of the stud sides. By placing the screw hole in the guard arm slightly lower than usual the tendency is to draw the shoulders up tight and effectually lock the guard and screw, preventing any side motion when the screw is driven home.

**AO-Loop Arm** (Patented.) This consists of a special construction for offset guards particularly applicable to finger-piece eyeglasses, but which is also supplied in connection with some of the regular forms of guards. By this construction the guard arm is attached to the guard proper at its posterior edge; that is, the edge towards the face. The Ludlow, Suction and Schwab guards are made under this patent. The many advantages claimed for the AO-Loop are explained in the Finger-piece Eyeglass Section, pages 141 to 148, inclusive.

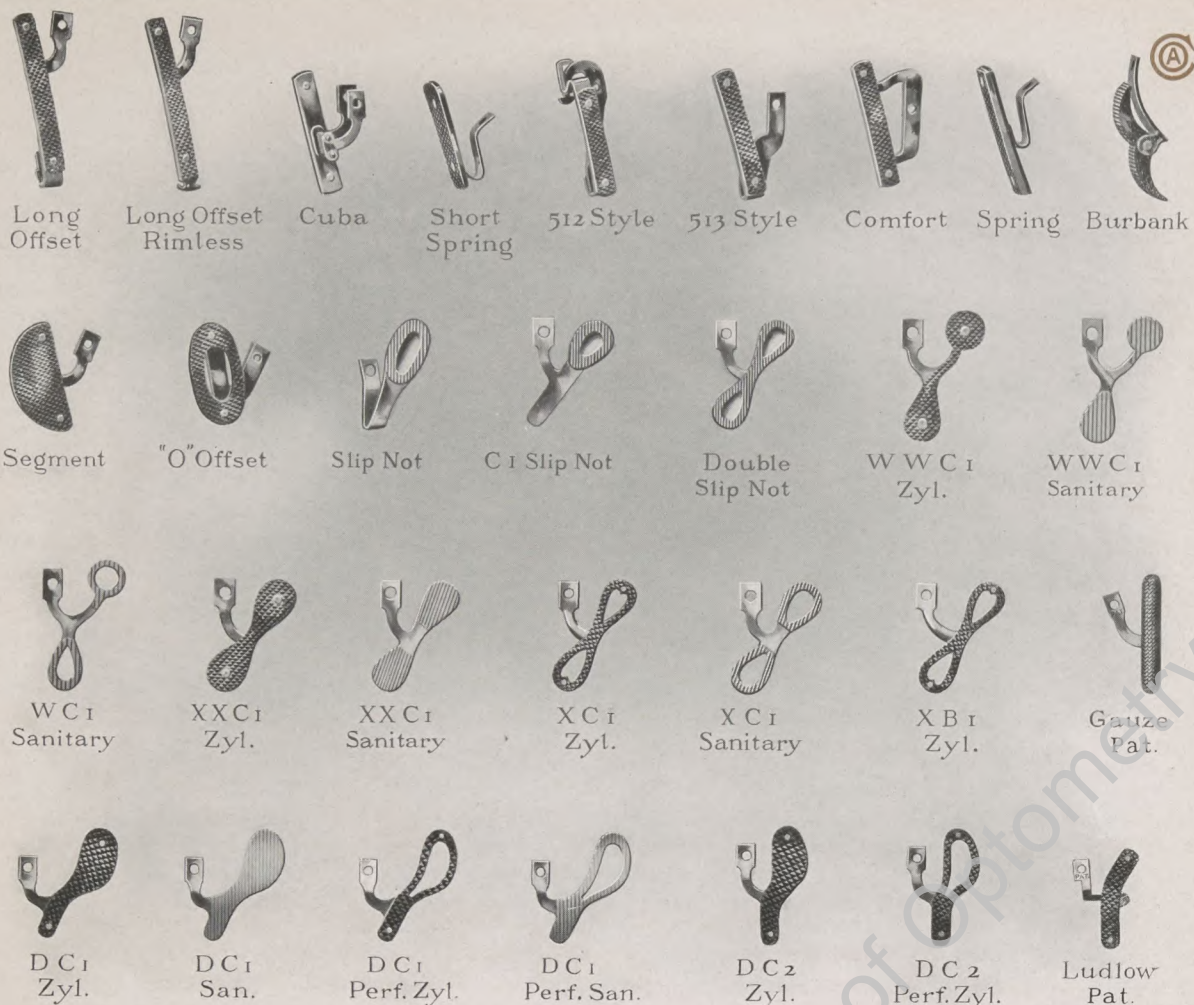
**Schwab Guards** (Patented.) The patented construction for this guard makes use of a principle unique in eyeglass guard manufacture. As may be noted in the illustration, guard is provided with an upper bearing pad which rocks on both a horizontal and a vertical axis. This horizontal axis motion causes it to seek a comfortable grip upon the fleshy part of the nose and its vertical movement gives it the very desirable property of resisting any tendency to slip forward. In fact, this peculiar mechanical action causes the forward edge of the bearing pad to turn in and grip more securely, resisting any effort to remove the glasses without first spreading the lenses apart in the usual way.

**Kolle Patent** Many of our regular forms of offset guards can be supplied with the Kolle patent construction for locking the assembled parts. This consists of a small tongue of metal drawn out from lower side of screw hole to engage in a corresponding recess in a spring, which, in turn, locks in a special box stud. Illustration shows the guard construction, the stud being graphically shown on page 172. In ordering, it is necessary to specify Kolle patent guards, springs and studs.

**Blind Rivets** The C 1 angle Wells Offset Guards having zylonite facings may be supplied with blind rivets; that is, the rivets do not pass through the metal of the guard blades, having been struck up out of the surface of the metal. This leaves the back of guard with a smooth, unbroken surface.







## EYEGLOSS GUARDS

## Offset Styles

The following named styles of offset eyeglass guards, shown in the above illustration, may be regularly supplied in all metals for which there is a general demand:

Long Offset  
Long Offset, rimless  
Cuba  
Short Spring  
No. 512 Style  
No. 513 Style  
Comfort  
Spring  
Burbank  
Segment

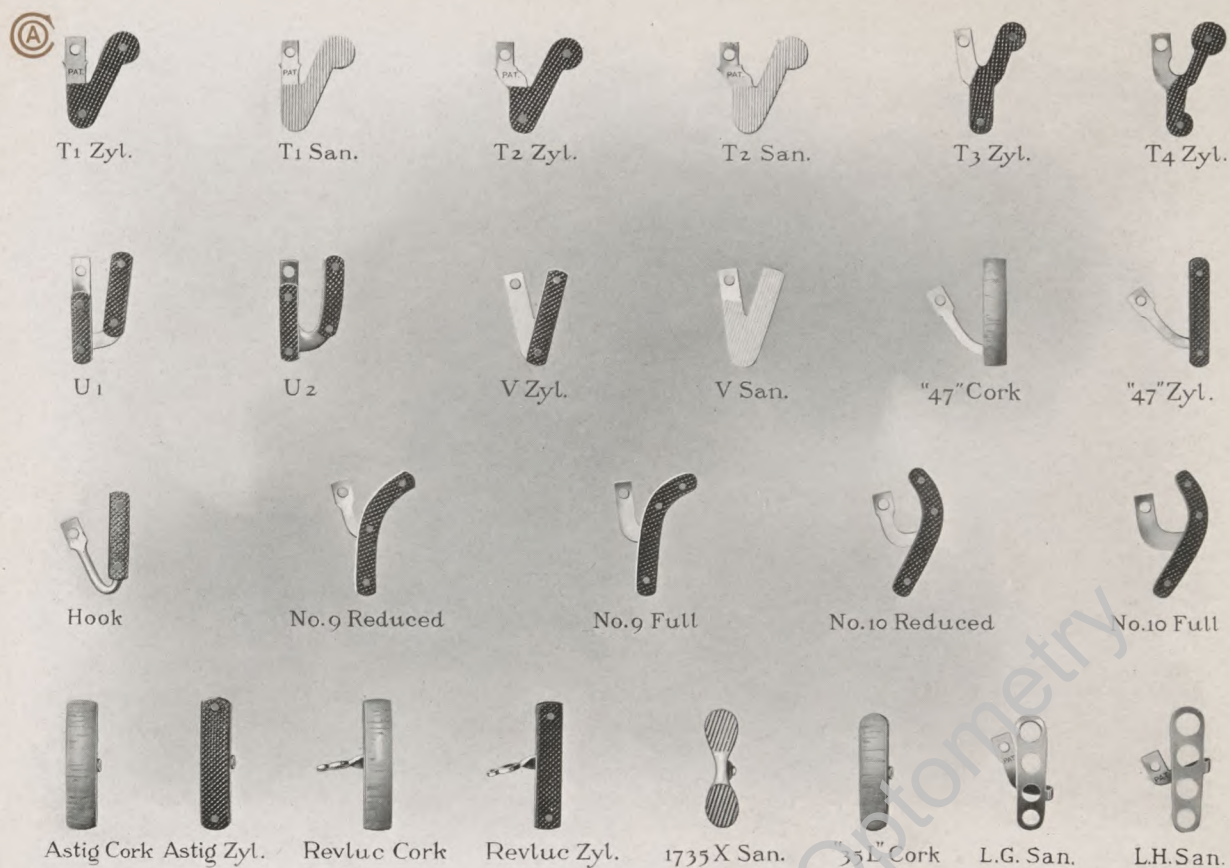
"O"  
"Slip-not"  
C1 "Slip-not"  
Double "Slip-not"  
WWC1 Zylonite  
WWC1 Sanitary  
WC1 Sanitary  
\*XXC1 Zylonite  
\*XXC1 Sanitary  
\*XC1 Zylonite

\*XC1 Sanitary  
XB1 Zylonite  
Gauze (Patented)  
DC1 Zylonite  
DC1 Sanitary  
DC1 Perforated Zylonite  
DC1 Perforated Sanitary  
DC2 Zylonite  
DC2 Perforated Zylonite  
Ludlow (Patented)

\*Also supplied with patented AO-Loop construction of Guard Arm.

Special attention is directed to the last guard shown in the above illustration, known as the Ludlow Guard. Its principal feature is the special patented AO-Loop construction of the guard arm, which has enjoyed a wide popularity from its use on Fits-U finger-piece eyeglasses. The loop arm passing around the outer side of the guard blade gives an opportunity for adjustment in any direction, up, down, in, out, forward or back. This AO-Loop construction is furnished also on the L.G. and L.H. Guards shown on the following page and the Schwab Guard shown on the opposite page. Some idea of this universal adjustability may be gained from the description given in the Finger-piece Eyeglass Section, pages 139 to 148, inclusive.





# EYEGLOSS GUARDS

## Offset Styles

Of the offset guards shown in the above illustration, the following may be regularly supplied in all metals for which there is a general demand :

"T" Guards Made in six styles as follows : T<sub>1</sub> Zyl., T<sub>1</sub> San., T<sub>2</sub> Zyl., T<sub>2</sub> San., T<sub>3</sub> Zyl., T<sub>4</sub> Zyl.

"U" Guards Made in two styles : U<sub>1</sub> Zyl. and U<sub>2</sub> Zyl.

"V" Guards Made in two styles : V Zyl. and V San.

"47" Guards Made in two styles : "47" Cork and "47" Zyl.

Other styles of offset guards as shown are :

"Hook"

"No. 9" Reduced Arm

"No. 9" Full Arm

"No. 10" Reduced Arm

"No. 10" Full Arm

Astig Style Cork

Astig Style Zyl.

Revluc Style Cork

Revluc Style Zyl.

No. 1735 X San.

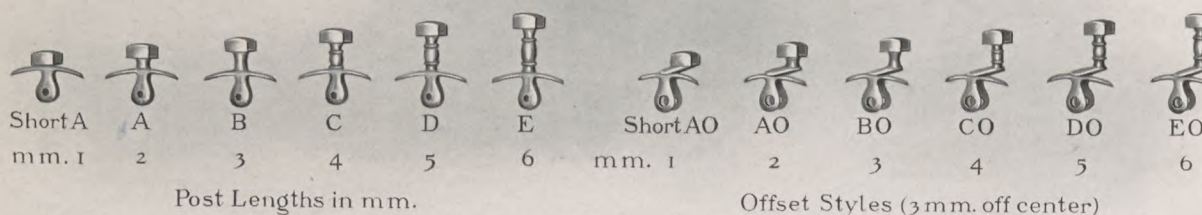
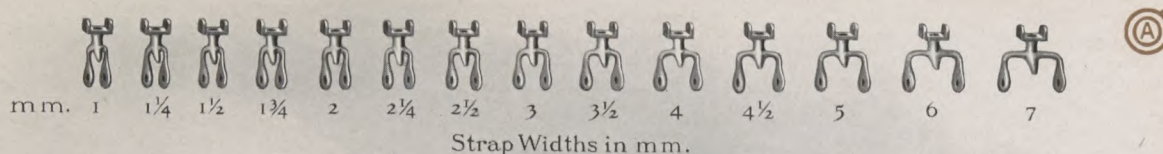
No. 1735L Cork

L. G. San. (Patented AO-Loop)

L. H. San. (Patented AO-Loop)

See pages 166 and 167, for explanation of AO-Loop patent.





## EYEGLOSS STUDS

**Strap Widths** The figures under the straps in the accompanying illustration represent widths in millimeters and are used as numbers to designate those sizes in ordering. This system, originated by us, is now universally employed. All AOCO straps are made to an accepted standard gauge measured from center of screw hole to the central point of contact of edge of lens. Nos. 1½ and 2 straps are supplied in equal quantities unless order specifies other sizes.

**Form of Straps** Rimless Studs are regularly supplied with Rounded (R) Straps unless Flat (F) Straps are specified in ordering. Flat Straps can be supplied in all metals except gold-filled. Rounded Straps are regularly furnished on all rimless eyeglasses and spectacles except where otherwise described and listed herein.

**Weight of Straps** Straps of studs and rimless spectacles are made regular weight unless otherwise ordered. If heavy or extra heavy straps are desired, add H. or E. H. to letter denoting form of strap, as, R. E. H., F. H., etc.

**Post Lengths** The lengths for stud posts are designated by letters as illustrated. The AA Stud or Short A as it is sometimes called, has no post, the box or cap being soldered direct to straps. B Studs are supplied unless otherwise ordered. The length of a stud post is measured from the bottom of box to the inner surface of straps or eyewire.

**Ball Straps** This construction for rimless studs and also for spectacle mountings is a very important improvement. Briefly, there is supplied a reinforced or thick ball shaped strap on the tapped side which gives several more threads than the regular strap, insuring a more secure hold for the glass screw. Ball straps can be supplied on any studs or rimless mountings up to 2 mm. width between straps (2 strap). Ball straps are supplied only when order so specifies.

**Regular Studs** The regular form of eyeglass stud, sometimes called open stud, is most generally used and is supplied unless otherwise ordered.

**Offset Studs** These measure 3 mm. from center of strap to center of stud screw and may be supplied in any of the following forms of construction:

*Inset.* For setting lenses away from face.

*Outset.* For setting lenses in towards face.

*Upset.* For setting lenses down.

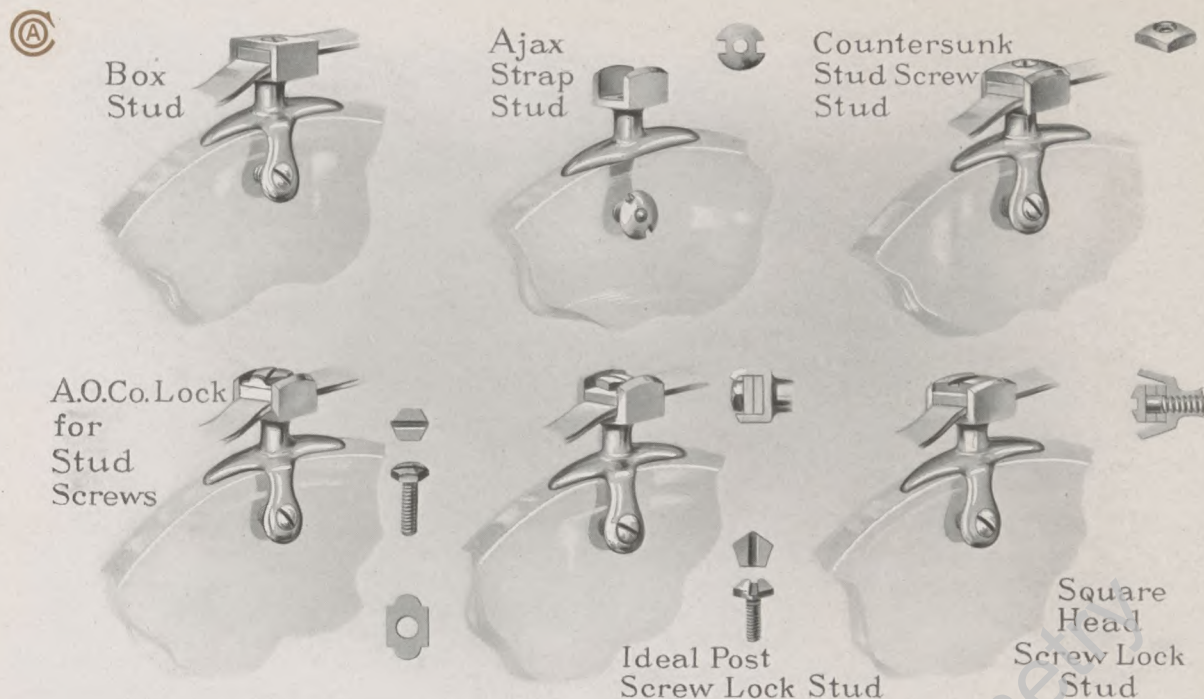
*Downset.* For setting lenses up.

*Diagonal.* For setting lenses diagonally up and out, or down and in, etc.

Offset studs may be supplied in all post lengths from Short AO to EO, as illustrated.

**Angular Studs** Sometimes called tilting or slanting, are made in all styles, and at any desired angle. Our standard Angular Stud is angular 12° and is furnished unless special angle is designated.





## EYEGLOSS STUDS

**Box Studs** (Patented.) This form of eyeglass stud is now very well known and frequently imitated. It is a very simple construction, permitting the use of any regular styles of guards and springs. The screw is countersunk flush with the top of box, the under side of head bearing directly upon the arm of guard. This gives the mounting a finished appearance. The box construction effectually prevents the guards and springs from "weaving" sidewise so the screw does not become loose.

**Ajax Strap** (Patented.) Supplied on any form of rimless studs or spectacle mountings, they commend themselves to dealers by reason of the fact that with this construction it is unnecessary to carry a stock of different strap widths. By their construction, liability of breakage of lenses is reduced and loosening of glass screws is prevented.

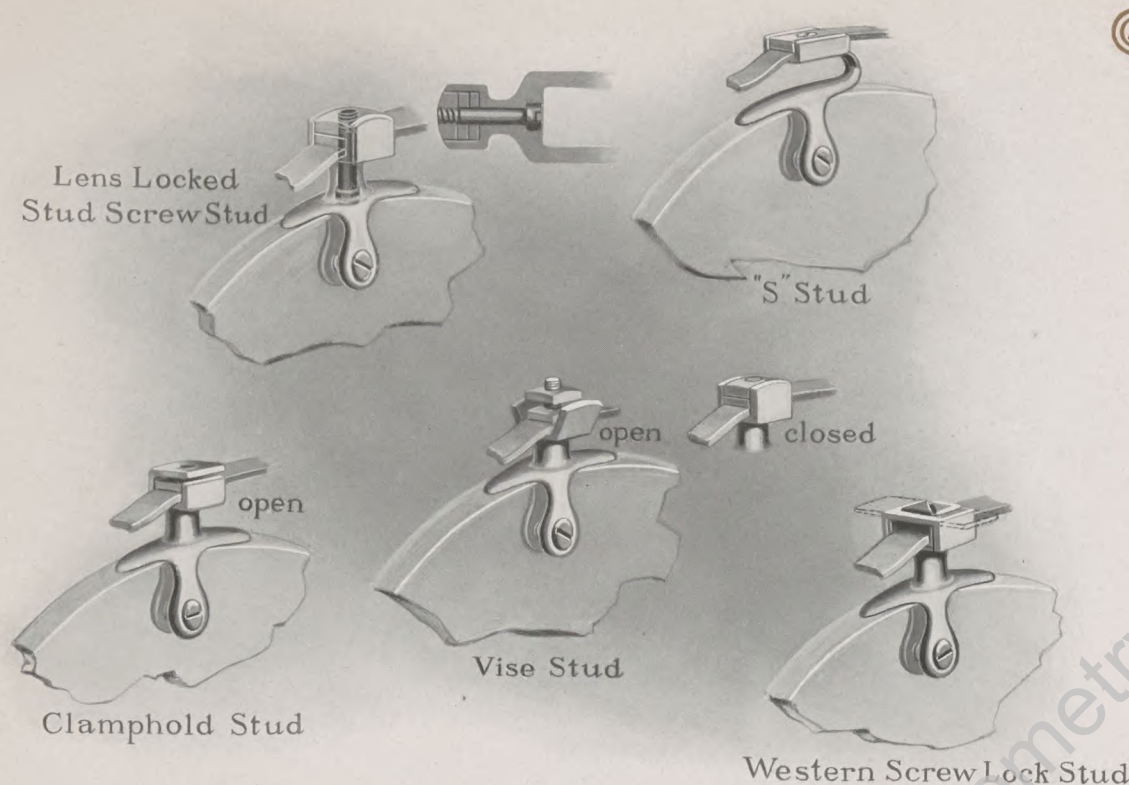
**Countersunk Stud Screw Studs** C. S. S. S. These differ from the regular open studs only in that they are fitted with countersunk blocks which surround the heads of the stud screws, giving the desirable flush finish.

**AOCO Lock for Stud Screws** (Patented.) By the use of a thin plate or washer having extending tips and the employment of a six-sided head stud screw, it is possible to effectually lock the screw after it has been driven in. The washer is placed between the screw head and the guard. When the screw has been tightened, one of the tips of the washer is bent up against one of the flat sides of the screw head. This can be supplied with any open studs when so ordered.

**Ideal Post Screw Lock** (Patented.) A screw having a large five-sided head is used in an open stud, the sides of the stud having been first spread apart to permit turning. After screw is driven in, the sides are bent back effectually locking the screw.

**Square-head Screw Lock** (Patented.) This is the same as our Ideal Post Screw Lock, described above, except that a square-head screw instead of a five-sided head screw is used.





### EYEGGLASS STUDS

Lens Locked Stud Screw Studs (Patented.) The stud screw is inserted from the under side of the post between the straps, before the lens is put in. A block is used to make a flush finish at top of stud and the point of the screw is finished even with the surface of block.

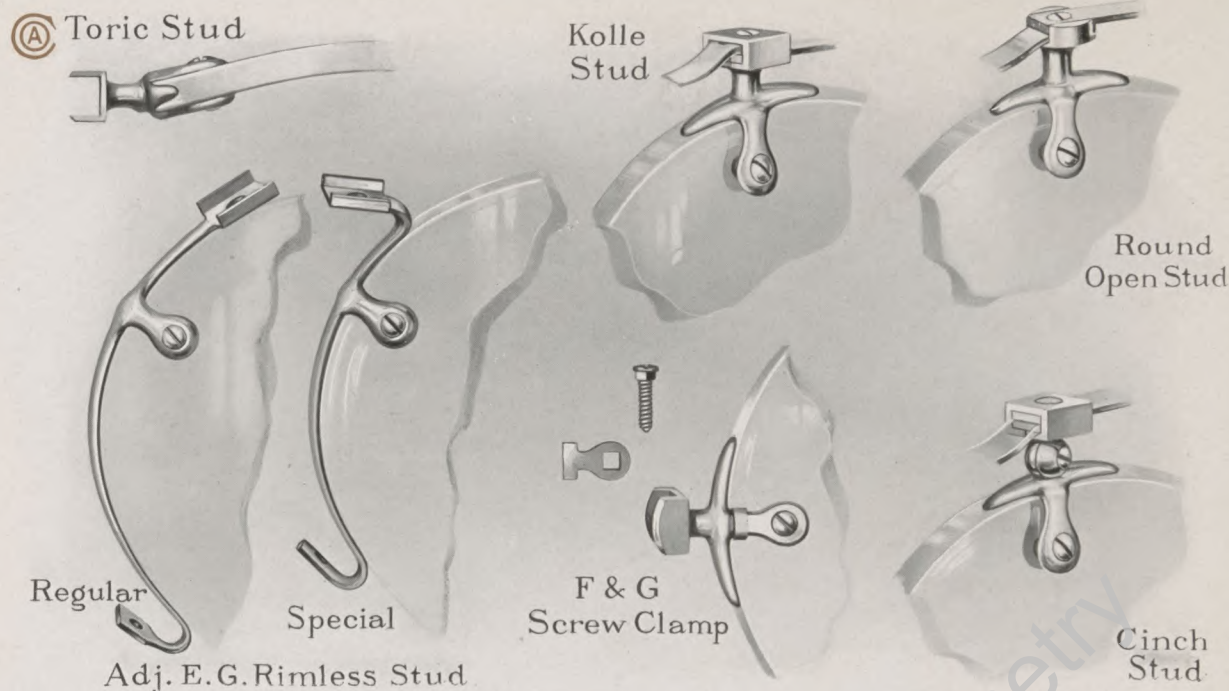
"S" Studs These are a form of studs which are provided with an open box formed continuous and integral with one of the lens arms. This arm is very light and susceptible to many special adjustments. "S" Studs are sometimes supplied with a loop post, as illustrated in Fig. 1, page 177.

Clamphold Studs (Patented.) An improved form of box stud slotted on one side. When stud screw is tightened top of box is drawn tightly up against the back wall of the stud, preventing any loosening of parts. The head of the stud screw is countersunk in the top of the stud and makes a perfectly smooth finish.

Vise Studs (Patented.) These studs are provided with a screw soldered to the post, the sides being spread apart. Spring and guard are placed over the screw and a square nut is screwed down tight, after which the sides are bent up against the nut, making it impossible for the nut to turn. For this purpose we supply a special form of screw driver having a rectangular recess in the end to receive the nut, see Machinery Section.

Western Screw Lock Studs (Patented.) In connection with a stud having a plate on the end of the post and no projecting sides, there is supplied an oblong cap plate with square-head screw countersunk flush with its outer surface. This is screwed down tight over spring and guard after which the sides of the cap plate are bent down over the parts so that the screw is effectually locked and cannot turn or loosen.





## EYEGLOSS STUDS

**Toric Studs** The more general use of toric and meniscus lenses has caused a demand for an angular form of eyeglass stud known as the "Toric Stud". In this the post is soldered at such an angle that when mounted with toric or meniscus lenses the lenses will line up in the correct vertical plane. Toric studs may be supplied in the regular styles, box or open forms.

**Adjustable Eyeglass Rimless Studs** Sometimes designated as "Rimless Trimming". This construction makes possible the use of adjustable eyeglass guards in rimless mountings.

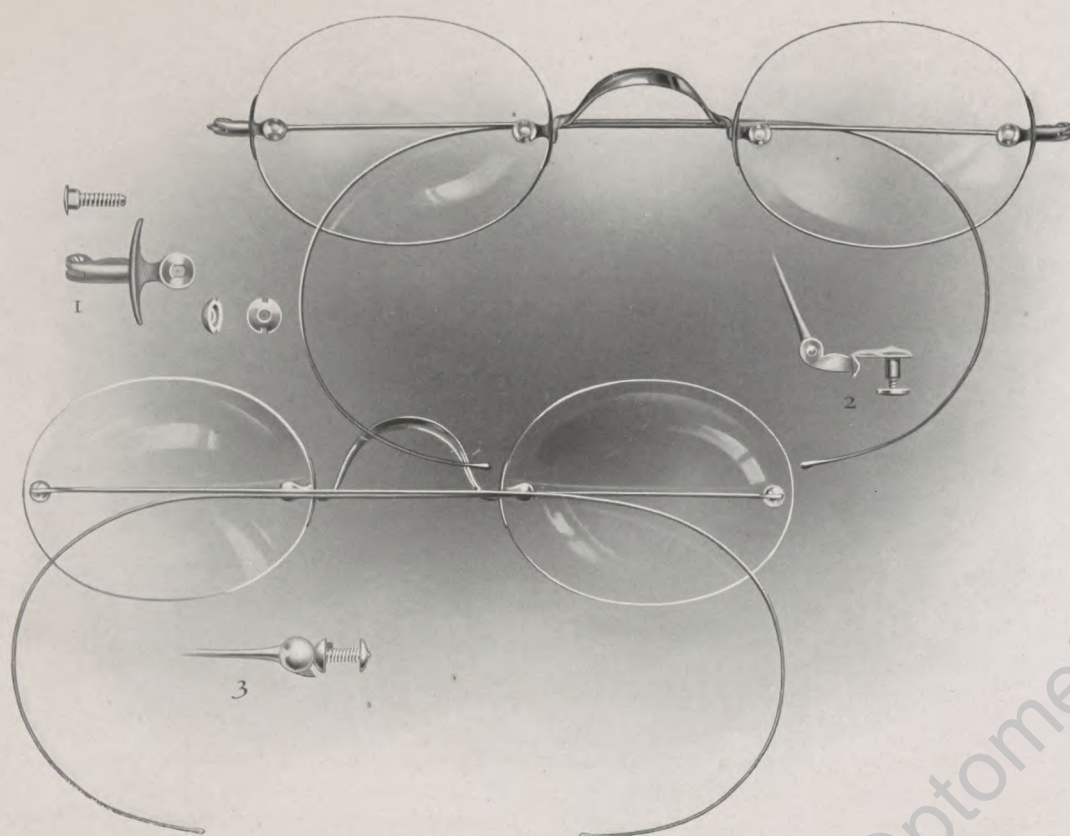
**Kolle Studs** (Patented.) A small tongue of metal drawn out from lower edge of screw hole in the end of a Kolle patent guard engages in a recess made from drawing a similar projection from a Kolle patent spring. These projections interlock, the one on the end of spring engaging in a recess cut in the bottom of a box stud. This provides a simple means of preventing the loosening of parts. See description, page 166.

**"F and G" Screw Clamp** (Patented.) This is a small clamp or washer having two projecting arms on one side and provided with a square hole. A special square shoulder glass screw is used and inserted first through the clamp and then in any regular rimless straps in the usual manner. After screw is tightened the projecting arms are bent down around neck of lens strap, thus preventing the glass screw from turning.

**Round Open Stud** This form is a departure from the regular open and box styles. As shown in illustration, sides of box are rounded although the regular standard gauge recess is provided and stud is assembled with spring and guard in the usual manner.

**Cinch Stud** This stud is a modification of the box stud. The post is made ball-shaped and split. To open, the screw is removed from the ball and the box is bent open. A depression in end of box forms a lock for guard hole on the inside and a small extending point inside of box from post similarly locks the spring. When box is closed over guard and spring and post screw driven in, the mounting is exceptionally tight.





## AJAX STRAP.—PATENTED

Illustration No. 1

The peculiar construction of this strap tends to reduce the breakage of lenses. The inner surface of the strap, and also of the washer, is concave, so that the actual contact with the lens is confined to the outer edge of the circle, thus preventing the leverage of the screw on the glass around the hole, and transferring the strain to the flat unbroken surface of the lens. The outer surface of the strap is countersunk, to fit the under surface of the head of the screw, which is rounded, thus admitting of a rocking motion, making it unnecessary that the screw stand at exactly right angles to the strap. In ordering, the specification "Ajax" should follow the catalogue number, and may be applied to any spectacle or eyeglass mounting, except No. 860 styles. See page 170 for description of Ajax Stud.

## BOYD AJAX STRAP.—PATENTED

Illustration No. 2

The Boyd patent is a modification of the Ajax single arm strap construction, having a threaded tube attached to the arm of the strap into which the special large head glass screw is fitted. The tube not only provides a large frictional surface for the screw, but it is intended particularly to extend through the hole very slightly beyond the opposite surface of the lens. When the glass screw is driven in, its head rests against the end of the tube and there is consequently no tension from the screw head upon the glass. This also overcomes to a large degree the tendency of the glass screw to work loose. In ordering, specify "Boyd Ajax".

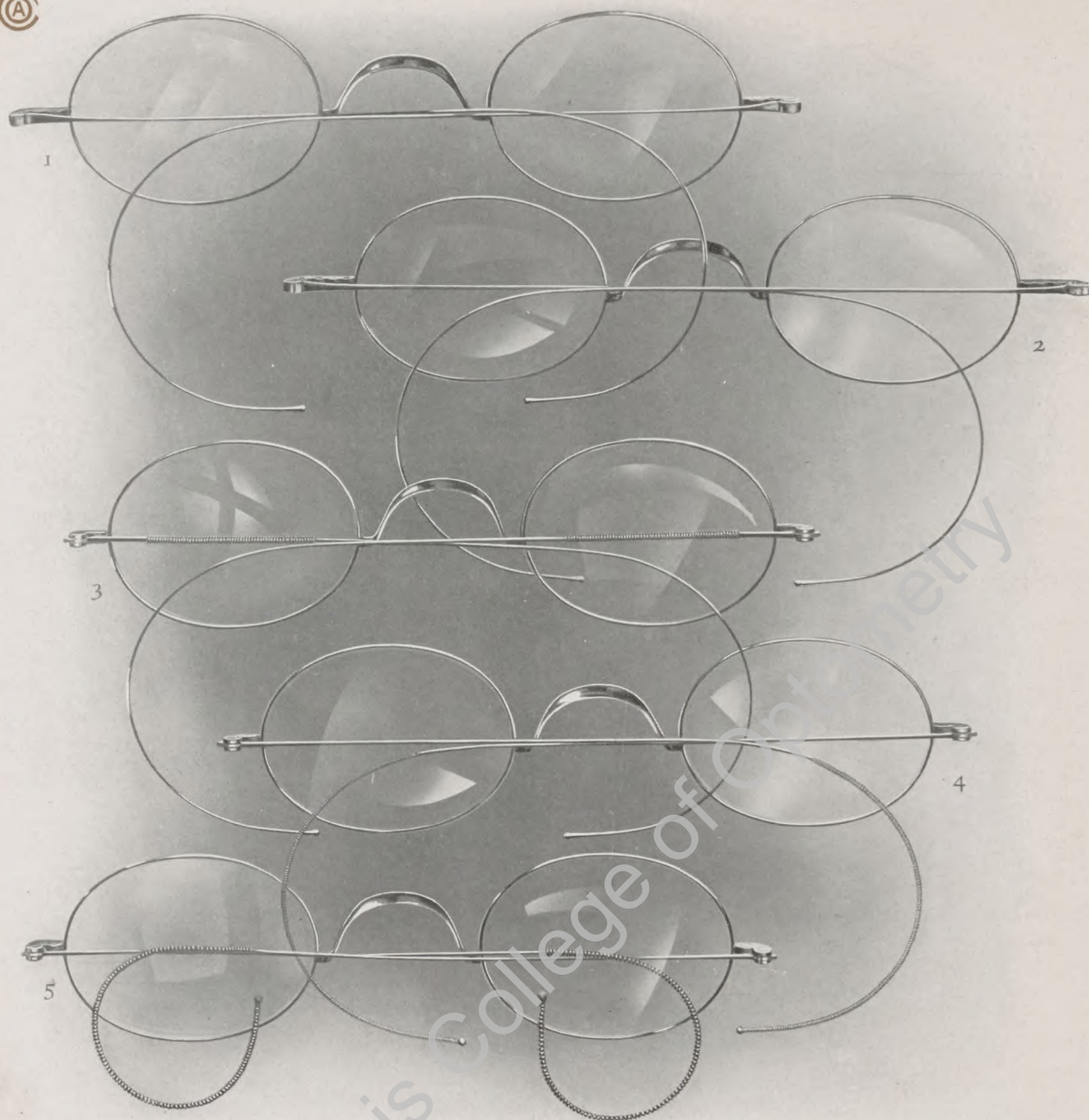
## MANSFIELD MOUNTINGS.—PATENTED

Illustration No. 3

The Mansfield mounting is desirable in cases with a narrow temple distance. The lens is drilled to admit the mounting in the manner shown in the illustration. It is securely held in place by means of an Ajax washer. In ordering, specify "Mansfield", following the catalogue numbers 798, 798½, etc.

We supply spanners made especially for attaching washers on Ajax and Mansfield mountings. See Machinery Section.



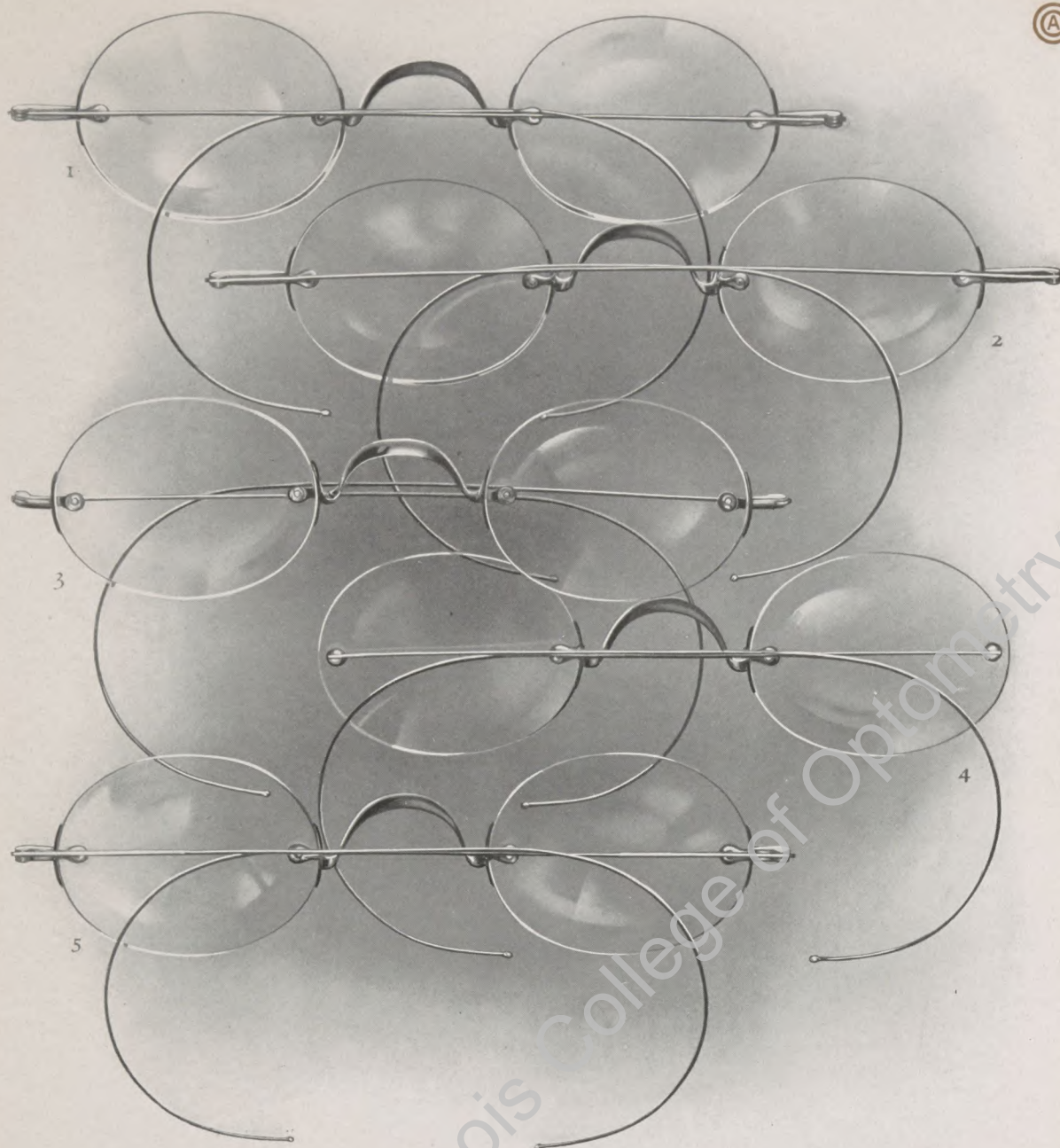


SOME SPECIAL FEATURES APPLICABLE TO SPECTACLE FRAMES

1. Long End Piece (adds 6.5 mm. to temple width)
2. Extra Long End Piece (adds 9.5 mm. to temple width)
3. Spiral Butt Temples
4. Spiral Shield Temples
5. Spiral Tip Temples

For other special details of Spectacle Frames, see previous pages.



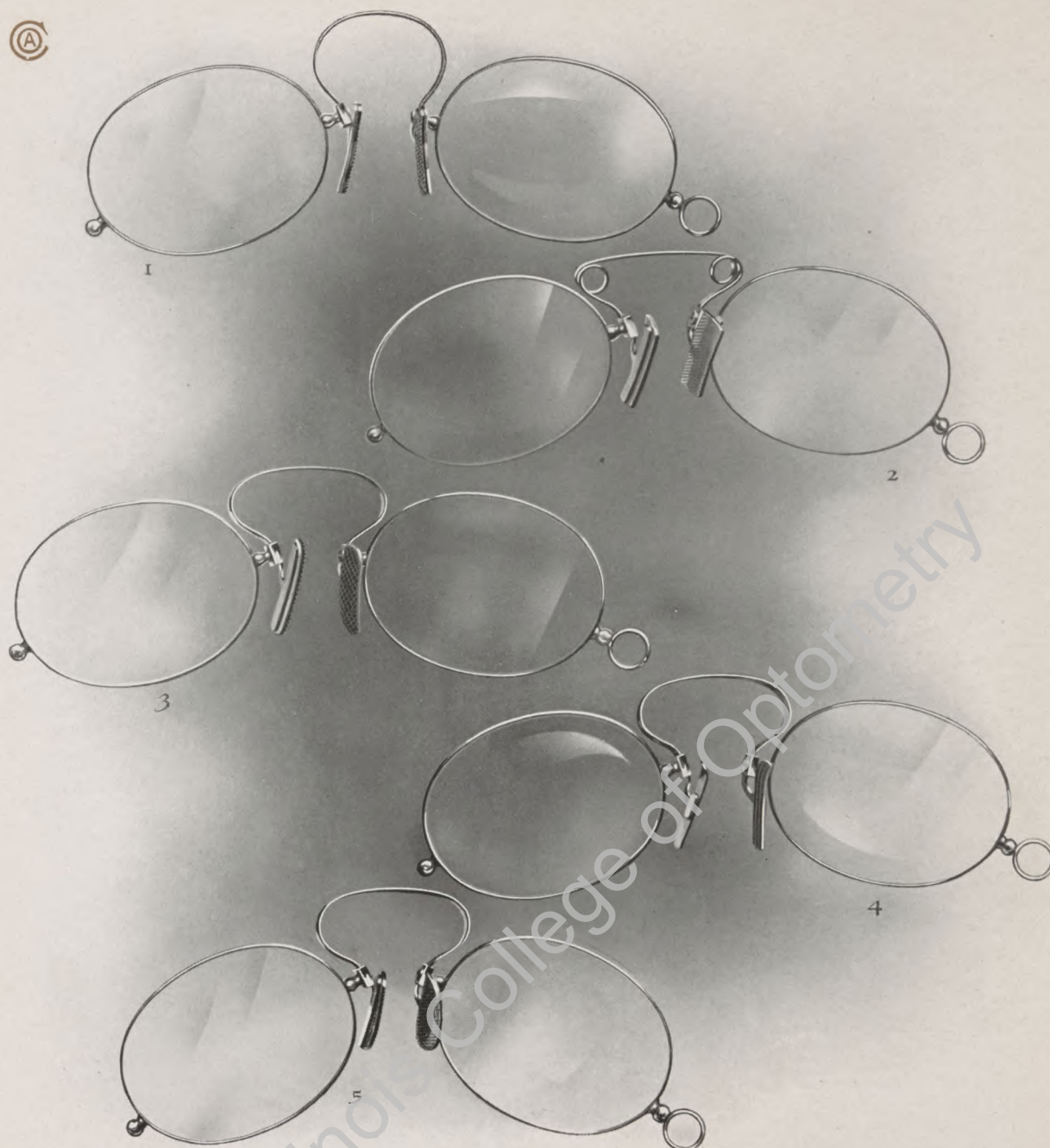


SOME SPECIAL FEATURES APPLICABLE TO SPECTACLE MOUNTINGS

1. Long End Piece (adds 6.5 mm. to temple width)
2. Extra Long End Piece (adds 9.5 mm. to temple width)
3. Ajax Straps
4. Mansfield Temple (for narrow P. D.)
5. Square Butt Temples

For other special details of Spectacle Mountings, see previous pages.



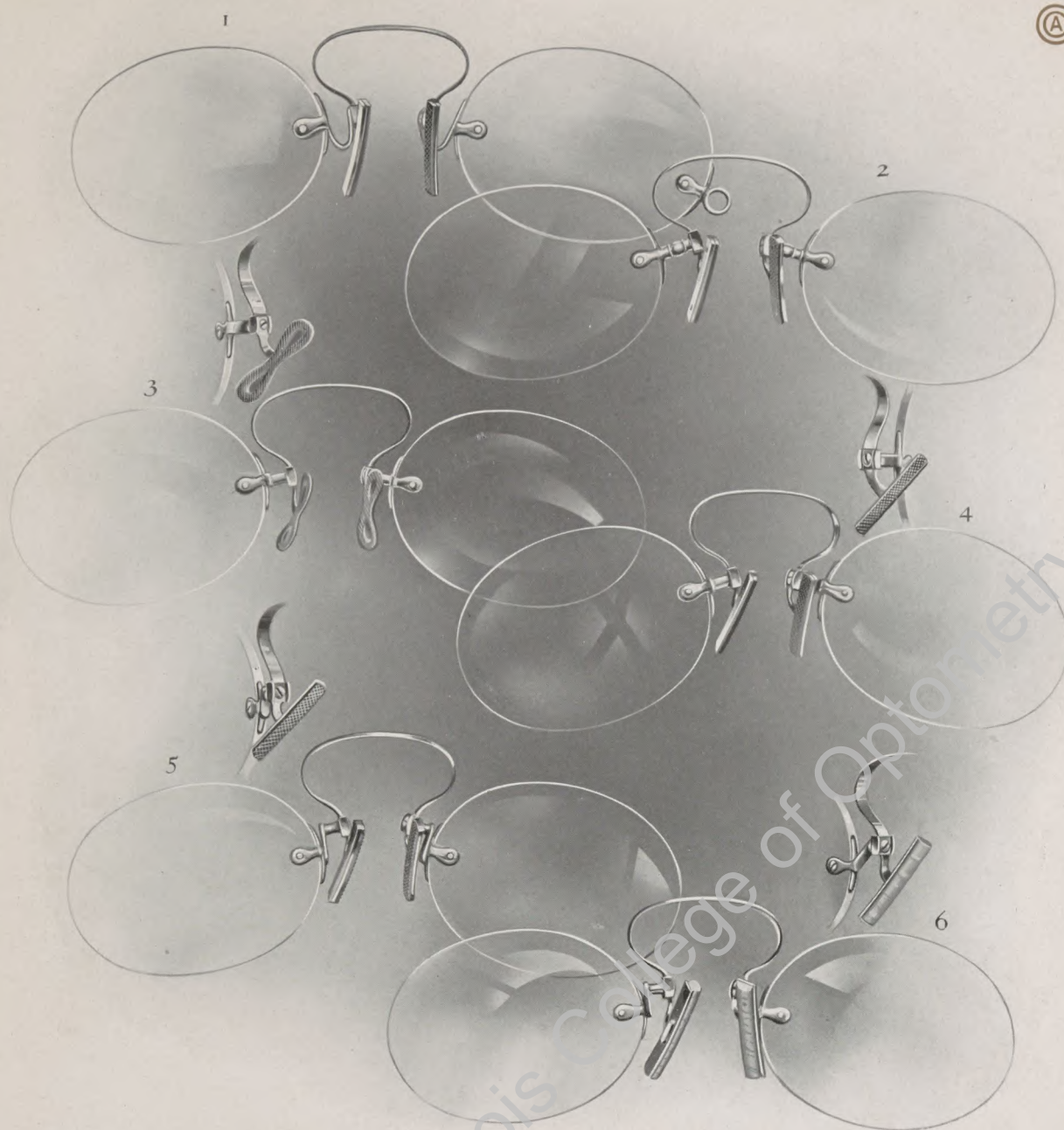


# SOME SPECIAL FEATURES APPLICABLE TO EYEGLOSS FRAMES

1. Hoop "H" Spring and Zylonite Guards
2. "S" Spring reduced (R), patented, and 5 mm. light Zylonite Guards
3. Regular Spring and No. C-1 Shark Skin Guards, patented
4. Tilting Spring and No. C-1 Sanitary, Riveted Arm Guards
5. Regular Spring and Segment Guard

For other special details of Eyeglass Frames, see previous pages.





### SOME SPECIAL FEATURES APPLICABLE TO EYEGGLASS MOUNTINGS

1. "S" Studs and "BH" ring handle
2. "D" Studs, lenses drilled 2 mm. above center
3. "B" Studs, "Inset", C-1 double slip-not guard, to set lenses away from face
4. "B" Studs, "Outset", to set lenses toward face
5. "B" Studs, "Upset"
6. "B" Studs, "Diagonal Upset"

For other special details of Eyeglass Mountings, see previous pages.





## SCREWS AND TAPS

We cannot too strongly emphasize the importance of using accurate optical screws. Screws in themselves are such small material that one is too apt to take their accuracy for granted or to consider it of slight importance. The manufacture of optical screws is always undertaken with automatic screw making machines. Unless these machines are of the highest type, accurately adjusted and calibrated, the production of perfect optical screws is impossible.

In manufacturing optical screws we found that most of the commercial screw machines usually employed were not altogether satisfactory for the fine work required, and we were accordingly obliged to design and build our own equipment for this purpose. As a result, we are enabled to market a screw product of uniform and guaranteed accuracy in gauge, length, thread and temper. The use of AOCO screws for optical goods means much to us as manufacturers, as it insures perfectly finished optical goods. It means as much more to the trade to use AOCO guaranteed screws, as it insures perfect prescription and repair work.



## SYSTEM OF NUMBERING

On page 180 we give a list of screws which are required for daily repair work in busy shops. It will be noted that each style of screw is given a catalogue number corresponding to the number of the style of AOCo goods in which it is most generally used. The catalogue numbers of other goods for which these screws may be used are given in addition. After each style of screw we give the number of the tap, which has a corresponding thread. Taps and screws should be ordered by these numbers.

The use of the plus (+) sign in connection with the catalogue numbers of AOCo optical screws and screw taps indicates gauge slightly larger than regular, for repair work.

Attention is called to the Ideal Screw Assortments and Universal Screw Tap Set described below and illustrated on the opposite page.

## THE IDEAL JUNIOR SCREW ASSORTMENT. No. 4016

This consists of a cloth-covered wooden case having sixteen separate compartments in each of which is placed a small screw-cap bottle containing an average dozen pairs of screws. The complete contents of this set is as follows:

Nos. 70, 716, 798, 1010, 1338, and 1638	- - - - -	End Piece Screws
Nos. 490, 490+, 593, 593+	- - - - -	Stud Screws
Nos. 590, 1790 and 1790+	- - - - -	Glass Screws
No. 881	- - - - -	Guard Screws
No. 3101	- - - - -	Finger-piece Screws

Two sizes Temple Washers and one size Finger-piece Washers.

## THE IDEAL SENIOR SCREW ASSORTMENT. No. 4024

This consists of a set similar to No. 4016, described above, but containing 24 bottles and as many different kinds of screws, with three times the quantity of screws. The complete contents is as follows:

Nos. 70, 716, 720, 798, 1010, 1338, 1638	- - - - -	End Piece Screws
Nos. 1735, 1726	- - - - -	Ball End Piece Screws
Nos. 490, 490+, 593, 593+, 1793, 1793+	- - - - -	Stud Screws
Nos. 590, 590+, 1790, 1790 L, 1790+	- - - - -	Glass Screws
No. 881	- - - - -	Guard Screws
No. 3101	- - - - -	Finger-piece Screws

Two sizes Temple Washers and one size Finger-piece Washers.

The bottles in the above sets have catalogue numbers of their contents blown into the glass for ready identification. In the cover of each box is a list of contents and on the reverse side of the circular is given a complete list of AOCo goods for which the screws can be used.

## THE UNIVERSAL SCREW TAP SET. No. M 158

This consists of a set of five screw taps in holders ready for use. These holders are marked plainly with the catalogue numbers of the screws for which they are most used and are supplied in a round wooden holder or block, which will be found a great convenience for use on the work bench. The following screw taps are supplied:

Nos. 70 490, 490+, 590 and 590+

See page following for list of screws for which these taps may be used.  
See Machinery Section for screw plates used for re-threading screws.



## AOCO SCREWS

Table giving catalogue numbers of goods for which AOCO Screws may be used. See description on preceding pages

No. 70 END PIECE SCREWS, USED FOR (No. 70 TAP)										
10	70	123	163	243	308	328	348	450	493	1081
30	80	133	183	248	316	336	376	460	500	1181
50	103	143	200	253	318	338	378	480	513	1361
60	113	150	206	273	326	346	440	490	520	1381
No. 716 END PIECE SCREWS, USED FOR (No. 490 TAP)										
702	708	718	726	766	803	Handle	903	1558G	1668GL	
706	716	719	728	768	901		908			
No. 720 END PIECE SCREWS, USED FOR (No. 490 TAP)										
	703	711	713	721	723	731	733	741	742	743
700	710	712	720	722	730	732	740			
No. 798 END PIECE SCREWS, USED FOR (No. 590 TAP)										
799	793	798	799	1398	1399	1599	1659	1668	1669	1699
No. 1010 END PIECE SCREWS, USED FOR (No. 70 TAP)										
	1004	1010	1041	1110	1301	1308	1316	1318	1341	1413
1000	1006	1016	1100	1116	1306	1311	1317	1331	1344	1418
1001	1008	1018	1106	1118	206 Style E. P.					
No. 1338 END PIECE SCREWS, USED FOR (No. 490 TAP)										
193	356	366	1243	1322	1326	1328	1338	1348	1358	1448
228	358	368	1248	1323	1326L	1333	1343	1353	1443	
No. 1638 END PIECE SCREWS, USED FOR (No. 490 TAP)										
1513	1528G	1553	1613	1622	1628	1638	1646	1646G-21	1558	3553
1523	1543	1558	1618	1623	1628G	1643	1646-21	2553	2638	3558
1528	1546									
No. 1735 BALL END PIECE SCREWS, USED FOR (No. 490 TAP)										
835	837	1236	1375	1377	1716	1735	1736	1741	1746	1747
836	1235	1237	1376	1711	1717	1735L	1737			
No. 1726 BALL END PIECE SCREWS, USED FOR (No. 490 TAP)										
801	827	834	850	853	863	881	1529	1722	1727	1723
803	831	839	851	861	871	883	1721	1726	1728	1739
813	833	841	852	862	873					
No. 490 STUD SCREWS (No. 490 TAP)										
No. 490+ STUD SCREWS, LARGE SIZE, FOR REPAIR, USED FOR (No. 490+ TAP)										
440	490	513	523AA	803	871	1066	1181	1361	1381	1723
450	491	520	527	812	881	1081	1186	1362	1386	1726
460	493	521	543	813	883	1086	1266	1363	1393	1728
470	500	522	593A	861	1061	1103	1267	1366	1721	1722
480	503	523	801	862	1063	1166	1286	1371	1793A	
481	512									
No. 593 STUD SCREWS (No. 490 TAP)										
No. 593+ STUD SCREWS, LARGE SIZE, FOR REPAIR, USED FOR (No. 490+ TAP)										
570	590	890	893	1190	1197	1293	1390	1393	1790	1793
580	593									
No. 1793 BOX STUD SCREWS (No. 590 TAP)										
No. 1793+ BOX STUD SCREWS, LARGE SIZE, FOR REPAIR, USED FOR (No. 590+ TAP)										
580	583	590	593	890	891	893	1790	1791	1793	
No. 590 GLASS SCREWS (No. 590 TAP)										
No. 590+ GLASS SCREWS, LARGE SIZE, FOR REPAIR, USED FOR (No. 590+ TAP)										
380	398	560	573	583	590	599	1390	1393	1398	1399
388	399	570	580							
No. 1790 GLASS SCREWS (No. 590 TAP)										
No. 1790L GLASS SCREWS, LONG (No. 590 TAP)										
No. 1790+ GLASS SCREWS, LARGE SIZE, FOR REPAIR, USED FOR (No. 590+ TAP)										
1190	1197	1599	1668	1699	1790	1793	2599	2669	2699	3599
1193	1293	1659	1669							
No. 1399 AJAX GLASS SCREWS, USED FOR (No. 590 TAP)										
	583	Ajax		1399	Ajax		1599	Ajax, etc.		
No. 881 GUARD SCREWS, USED FOR (No. 590 TAP)										
460	500	500	834	861	881	1081	1181	1286	1386	1726
480	503	503	839	863	981	1086	1186	1381	1716	1796
481										
No. 3101 FINGER-PIECE SCREWS, USED FOR (No. 590 TAP)										
	3101	3103	3111	3113	3123	3171	3181	3201	3301	Etc.
W-WASHERS, ASSORTED SIZES										

Other style screws as, No. 1761 Bolster End Piece, No. 893B Lens Lock, No. 523 D. P., Nos. 590 and 1790 Countersunk Stud Screws, No. 809 Gold Glass Screws, No. 1375 Guard Screws, etc. may be regularly supplied on order





Steel Goods   Soft Metal Goods   Gold Goods   Glass Screws   Dowels   Temple Washers Large   Temple Washers Small

### MISCELLANEOUS MATERIAL

The material listed below is regularly carried in AOCo stock and is supplied through representative wholesalers in such quantities as may be required.

Ferrules or short pieces of tubing used for repairing broken temples. Supplied in gold, gold-filled and white metal.

Temple Washers in white metal, furnished in two sizes, small and large, for tightening temples.

Rubber Tubing for Temples made in white rubber and furnished in any length desired. Three sizes, small, medium and large.

Celluloid Ball Tips for temples. Drilled, supplied in white only.

Bridge Blanks supplied in any metal and quality. Furnished bent and milled, unbent regular lengths, or unbent cut to exact lengths.

Cork Pads round, for guards.

Zylonite Pads round, for guards. Edges of pads are turned in and convex surface is corrugated, hole drilled in center for riveting. State color desired in ordering.

Zylonite Facing for guards, in all regular shapes for AOCo Guards, or furnished in strips of any size desired for this purpose. Corrugated one side. State color desired in ordering.

Shark Skin Facing for guards, in irregular sized pieces. (Patented.)

Bailey Rubber Facing for guards, same as regularly used on Bailey Rubber guards, see pages 163 and 165: Furnished in strips, size and length as required. (Patented.)

Rivets for Zylonite Guards furnished in gold, white and yellow metal.

Cork-Guard Straps These are metal backs for cork guards, furnished in gold, gold-filled and white metal.

Backs for Cork Adjustable Eyeglass Guards Made of very thin steel strips and used between the cork facing and guard straps. State catalogue number of guard in ordering backs. These strips give sufficient temper to the guard for adjustment.

Caps for Lower Part of Adjustable Eyeglass Guards Made in gold and gold-filled.





Ajax      Lens Washers      Fine Solder      Medium Solder      Coarse Solder      Ferrules      Zylonite Pads

### MISCELLANEOUS MATERIAL

Lens Lock Stud Blocks finished. Used in connection with Lens Locked Studs, see page 171.

Nuts for Vise Studs Used in connection with Vise Studs, see description, page 171.

"F and G" Screw Clamps for locking glass screws, see page 172. (Patented.)

AOCo Stud Screw Lock Washers See description of AOCo Lock for Stud Screws, page 170.

Ajax Washers furnished in gold, gold-filled and white metal. See description of Ajax Strap, pages 170 and 173.

Mansfield Washers furnished in gold, gold-filled and white metal. See description of Mansfield Mounting, page 173.

Screw Dowels for frameless end pieces. Made for gold, gold-filled and white metal goods, straight or tapered.

Screw Taps for tapping Studs, Straps, etc. See Machinery Section; also pages 178 and 179, this section.

Broaches See No. M 109, Machinery Section.

Catches for Nos. 590, 599, 690, 890, 1196, 1399, etc.

Catch Pins only, for attaching to handles of folding eyeglass. Supplied in gold, gold-filled and white metal.

Silver Solder for repair work, furnished in sheet form, wire form or cut in three sizes: fine, medium and coarse.

Gold Solder furnished in three qualities for 8k, 10k or 14k goods, cut fine, medium and coarse.

Dowels for spectacle frame end pieces, made in all sizes for AOCo goods. Specify catalogue number of goods in ordering.

Lens Washers These are strips of grooved metal which fit the groove of eyewire, for use when lens has been ground slightly small for the eye of frame. We can furnish a special tool for stretching eyewire when lens is slightly large. See No. M 209, Machinery Section.

Chain Material See Eyeglass Chain Section.

Material for Trial Frames See Trial Set Section.

Finger-piece Eyeglass Screws, Washers, etc. See Finger-piece Eyeglass Section.





### AUTOMOBILE GOGGLES

CATALOGUE NUMBER		DESCRIPTION
Cable Temple, White or Smoke, Plano, Coquille or Curved Lenses. Eye Size : 50.5 x 41.5 mm.		
Rigid Bridge	Folding Bridge	
3000 G - - - - -	3005 B - - - - -	Brown Leather Mask
3000 S - - - - -	3005 G - - - - -	Grey Leather Mask
3000 W - - - - -	3005 S - - - - -	Pongee Silk Mask
	3005 W - - - - -	Waterproof Silk Mask

Above Goggles furnished with Rubber Tubing over Temples when so ordered.  
 Above Goggles will fit cases Nos. 262, 267 and 268. See Spectacle Case Section. Cases are not furnished with goggles unless order so specifies.





# AUTOMOBILE GOGGLES

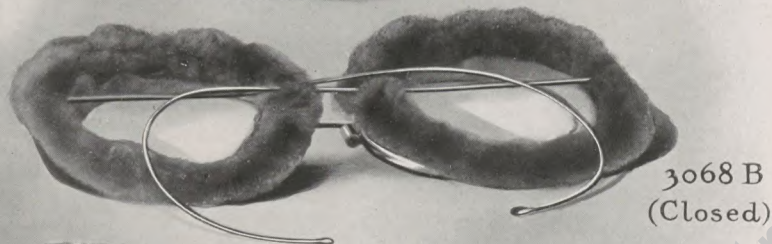
CATALOGUE NUMBER				DESCRIPTION								
White, Smoke or Amber, Flat or Curved Lenses. Eye Size : 59.5 x 54.7 mm.												
With Face and Nose Mask		With Face Mask		With Small Mask		Without Mask						
3060 B	-	-	3050 B	-	-	3055 B	-	-	3056 B	-	-	Brown Leather
3060 G	-	-	3050 G	-	-	3055 G	-	-	3056 G	-	-	Grey Leather
			3050 S	-	-	3055 S	-	-	-	-	-	Pongee Silk
3060 W	-	-	3050 W	-	-	3055 W	-	-	-	-	-	Waterproof Silk

Above Goggles will fit Goggle Case No. 387. See Spectacle Case Section.



Compensating  
Cable TempleHoop  
BridgeJointed  
Hoop Bridge

3068 B

3068 B  
(Closed)

3066 G

3066 G  
(Folded)

## AUTOMOBILE GOGGLES

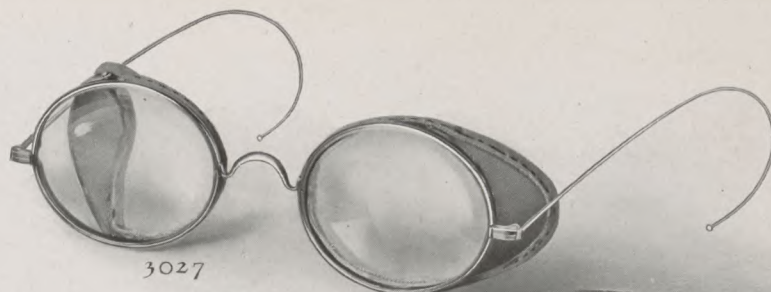
CATALOGUE NUMBER										DESCRIPTION
Oblong Folding Bridge, White, Smoke or Amber, Flat or Curved Lenses.										Eye Size, 39.5 x 49.5 mm.
With Elastic Headbands					With Temples					
3066 B	-	-	-	-	3068 B	-	-	-	-	Brown, Chenille Trimming
3066 G	-	-	-	-	3068 G	-	-	-	-	Grey, Chenille Trimming

"Hoop" Bridges can be supplied, folding (oval wire) or rigid style when so ordered.

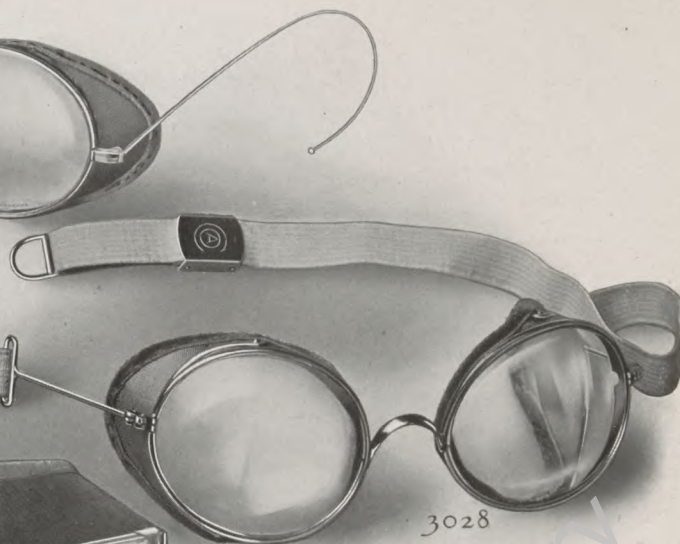
No. 3068 supplied with heavy Compensating Temples when so ordered, see illustration above.

Above Goggles, Nos. 3066 and 3068, will fit cases Nos. 386 and 387 respectively. See Spectacle Case Section.





3027



3028



3030



3030

## DRIVING, AUTOMOBILE AND PROTECTION SPECTACLES

CATALOGUE NUMBER	DESCRIPTION
Folding Screens, White, Smoke or Amber, Plano, Coquille or Curved Lenses	
Cable Temple	Combination Temple
3026	3028
3026 1/2	Large Eye (50.5 x 41.5 mm.)
3027	Large Eye (50.5 x 41.5 mm.), Reversible Temples
3027 1/2	oo Eye
	oo Eye, Reversible Temples
Riding Temple	Large Round Eye, Reversible Temples
3029	Heavy coarse mesh screen, for steel mill workers

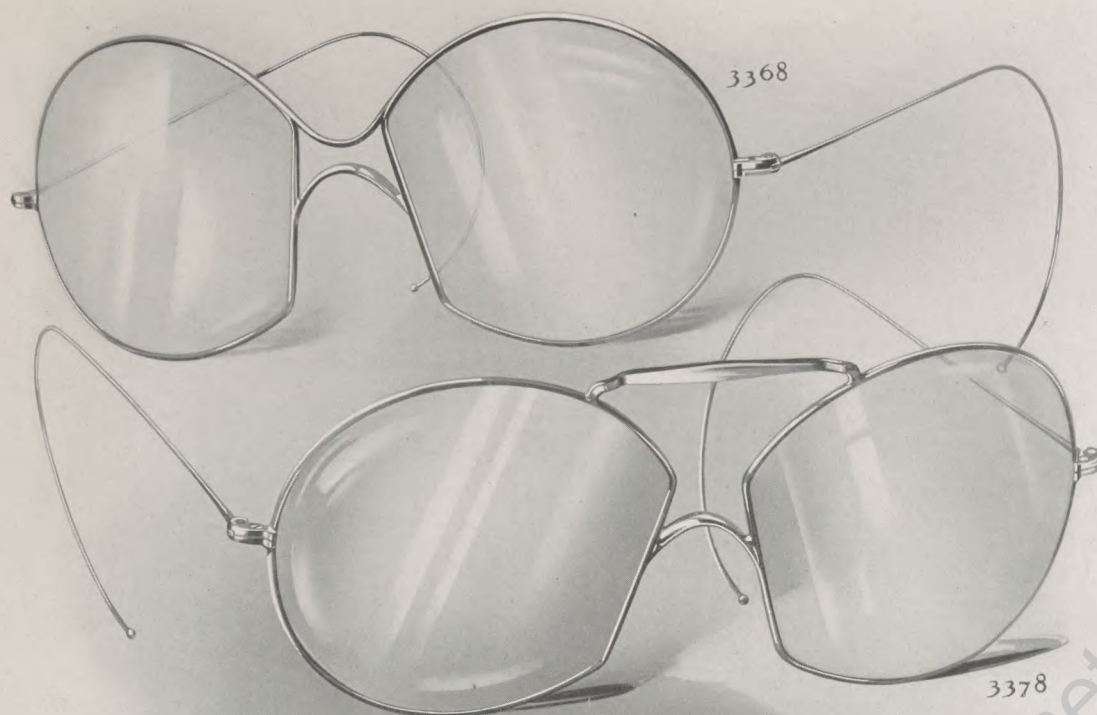
Above Spectacles will fit Spectacle Cases Nos. 272, 277 and 278. See Spectacle Case Section.  
Specify form and color of lenses wanted.

## AUTOMOBILE GOGGLES

CATALOGUE NUMBER	DESCRIPTION
"Four-Way", Double Horseshoe Eye, Gilt Finish, White, Smoke or Amber Lenses	
3030 B	Brown Leather Mask
3030 G	Grey Leather Mask
3030 P	Genuine Pigskin Mask
3030 I	Imitation Pigskin Mask

Above Goggles will fit Goggle Case No. 387. See Spectacle Case Section.





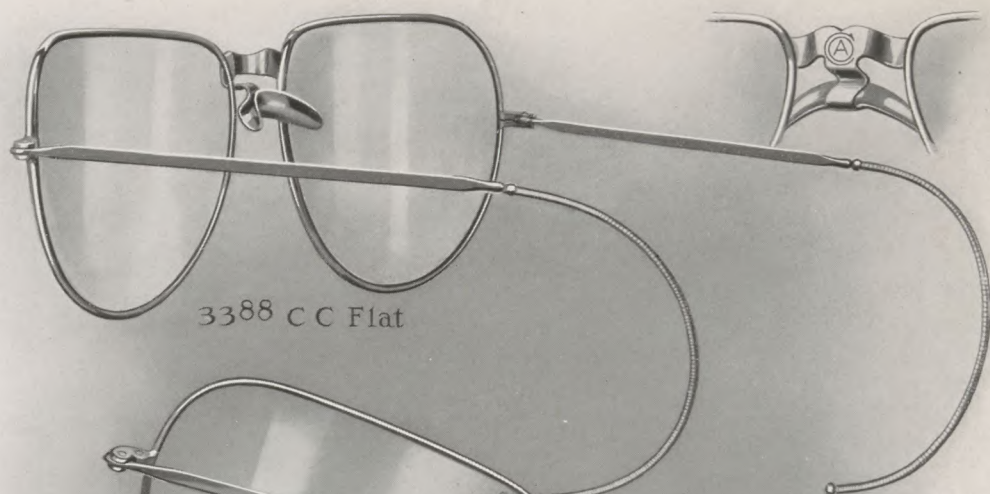
3368  
In Case No. 367

### SHOOTING AND AUTOMOBILE SPECTACLES

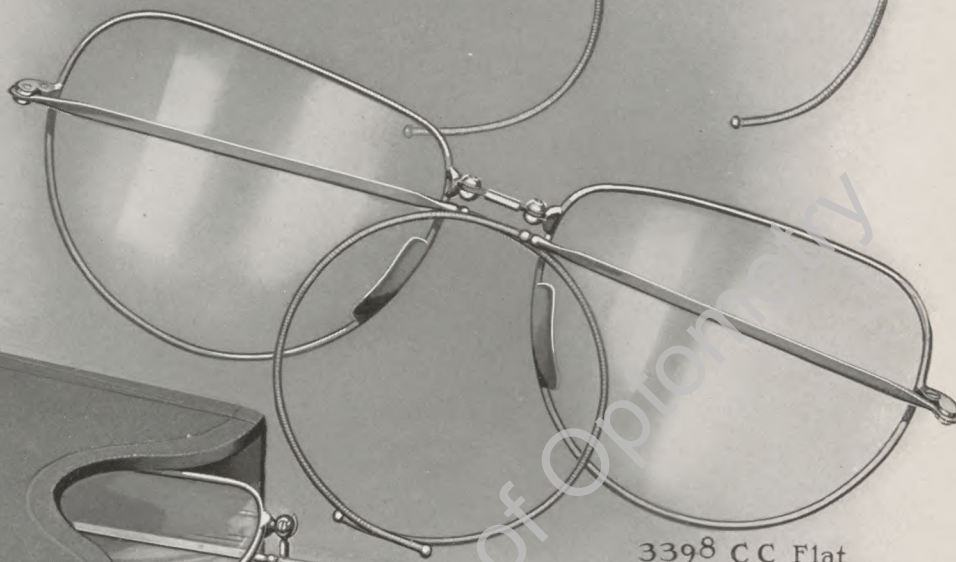
CATALOGUE NUMBER						DESCRIPTION					
Solid Riding Temple, Curved Amber Lenses											
Alumnico						10-12k Gold-filled					
3368	-	-	-	-	-	3668	-	-	-	-	Straight bar
3378	-	-	-	-	-	3678	-	-	-	-	Curved bar

Above Spectacles supplied fitted with lenses unless otherwise ordered. Cable C or Comfort Cable CC Temples supplied when so ordered. Curved Amber lenses regularly supplied. If White or Smoke lenses are desired, order should so specify. Above Spectacles will fit case No. 367, see above illustration.





3388 CC Flat



3398 CC Flat

3398 CC Flat  
Folded in 385 Case

## SHOOTING AND AUTOMOBILE SPECTACLES

CATALOGUE NUMBER				DESCRIPTION				
Solid Riding Temple, Curved Amber Lenses								
Alumnico	18-12k Gold-filled							
3388	-	-	-	3688	-	-	-	Adjustable Bridge. Patent pending
3398	-	-	-	3698	-	-	-	Folding Style, adjustable nose rests. Patent pending

Above Spectacles supplied fitted with lenses. Cable C or Comfort Cable CC Temples supplied when so ordered. If White or Smoke lenses are desired, order should so specify.

Above Spectacles will fit case No. 367, see page 189. Nos. 3398 and 3698 (Folding Style) will also fit case No. 385. See Spectacle Case Section.



Grinding When the blocks are ready for grinding they are carried up to the grinding room on automatic conveyors and delivered to their respective machines according to the curve and operation required. After being ground and polished the blocks are returned to the lower floor, where the lenses are picked off, washed and sorted for inspection.



Storage of Optical Glass Blanks

This grinding room is in every way ideally adapted to the work that is done there. Lighted by skylights as well as large windows, the work is carried on under perfect conditions of light and sanitation, an important factor in increasing the percentage of Centex lenses produced. The grinding room is 485 feet long and 128 feet wide, and is entirely taken up with grinding and polishing machinery. The construction of the machines permits the operator to stop any one spindle at a time, or an entire machine may be stopped, the machines being driven by independent electric motors, each capable of developing 35 to 55 horse-power.

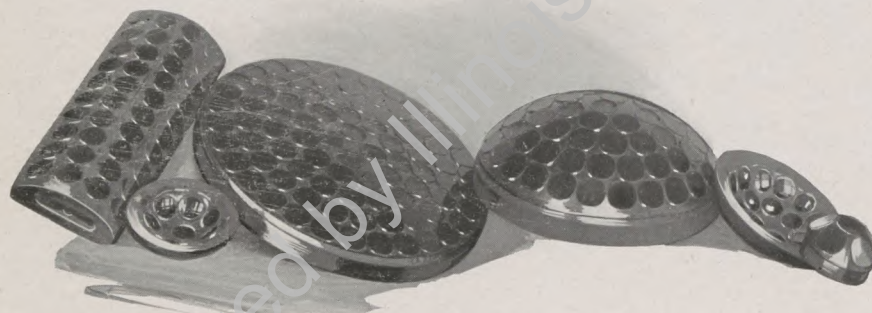
Each grinding machine extends across the entire floor, being 108 feet long. The number of spindles to a machine depends, of course, upon the curvature of the lenses ground, and varies from 200 to 1000. The total grinding capacity is about 10,000 spindles.

To prevent lenses from "chilling" and thereby becoming loosened from the blocks, this building is provided with a complete hot air system of heating kept in constant operation during cold weather.

A feature of the work in this department is the grading of emery for the several stages of surface grinding, and for supplying this material to the optical trade. This work requires expertness and judgment which comes of long experience, for the accuracy with which emery grading is done determines the length of time necessary to complete the grinding and polishing operations.

Glass Moulding In connection with the first operations in lens making, one of the most important steps is the moulding of rough glass to the approximate size and

curve of the lenses to be made. This work is carried on in a building devoted exclusively to such work. All high power lenses and lenses having strong base curves, as Meniscus and



Centex Lenses in Process of Making



Furthermore, by setting certain high standards of quality to be measured by expert inspection and governed by strict supervision, we have succeeded in educating the optical world to expect and accept only the most perfect goods that modern mechanical equipment and scientific efforts can produce.

*Lensdale* Our plant used exclusively for the manufacture of lenses is located at "Lensdale", about one-third of a mile south of the main works.

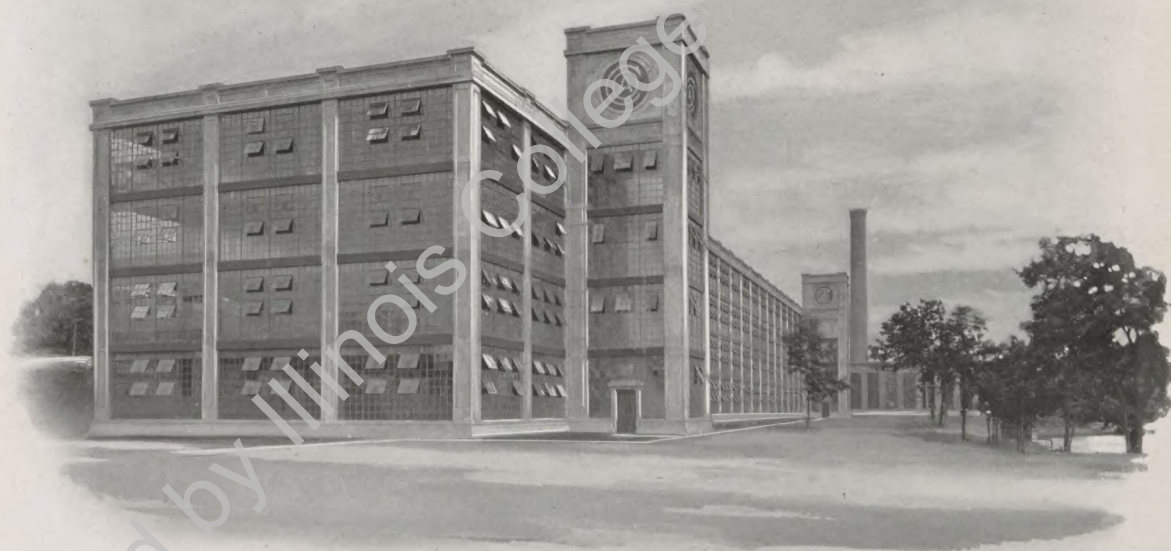
The Lensdale plant covers about forty acres of ground. Its buildings are conveniently situated with respect to one another, so that intercommunication and the handling of raw stock and goods in process is a matter of progression without lost time or effort.

There are three main buildings in the Lensdale group, and several subsidiary structures for the purposes connected with this work. The first in importance is the Grinding Department, where the raw glass is blocked, ground and polished.

This building has two floors. The lower floor is devoted entirely to blocking, making of moulds and other operations preparatory to sending the blanks to the second floor for grinding and polishing.



Research Bureau Laboratories



New Lensdale Factory and Power Station



Toric, Trial Set Lenses, Amoptiscopes and Condensers, etc., are moulded, which saves a great amount of time formerly consumed in "roughing out".

From the grinding plant the lenses are carried by tramway to the new Lensdale building. This building, devoted to inspection and various other operations after grinding, is admirably adapted to the work.

There are four floors devoted exclusively to these operations under ideal conditions. This building was erected farther away from the road than any of our buildings so there would be the least tendency to accumulate dust and foreign particles on the polished surfaces, which is one of the most serious problems with which the manufacturer of lenses must cope. Next in importance is the question of proper lighting for accurate inspection and classification, the result of which determines the *quality* of the finished product.

In this building these two problems have been happily solved, the first, as explained above, by locating the work far from the dust of the street and railroad, and second, by providing exceptional lighting arrangements.

As may be seen on the illustration on page 193, the building is of steel reinforced concrete construction, and, therefore, absolutely fireproof. The side windows are exceptionally large, being 18 feet wide and 14 feet high, extending from floor to ceiling. At the end of the building the windows are even wider, the average width being 22 feet.

During the daytime the interior is almost as light as out-of-doors.

The ground floor contains the intricate automatic machines for bevel and rimless edging. These are so constructed that they will grind almost any required size or shape. Here also lenses are cut. Hundreds of hands are required for these operations. The cutting is done with surprising dexterity, operatives becoming very expert in this branch of the work. A large department in this building is devoted to manufacturing special forms of bifocal lenses.

Lenses not applied on special orders go to the storehouse, occupying two-thirds of the second floor, and are put into American Optical Company stock. Almost every kind, color and focus is carried subject to the immediate call of customers. Finished lenses coming via tramway from the grinding plant or sent up from



Axis Marking



Lens Cutting Room



the first floor go to the second floor, where they undergo the many operations necessary to produce marketable goods. Hundreds of employees are kept constantly at work examining and classifying the various qualities, selecting for thickness, centering and axis marking.

Interchangeable and rimless edge lenses are all tagged with their focus numbers by wonderful little automatic tagging machines.

Every lens is focused independently, so that the possibility of error in tagging them is obviated. Trial set lenses must be separately focused and neutralized, and perfectly centered before they are set into the rims.

Here orders for set goods, that is, frames or mountings set with lenses, are handled, hundreds of dozens passing through daily. All drilling is also done in this department.

Rigid supervision is necessary to prevent carelessness, which might result in scratching the surfaces of lenses. No two lenses are allowed to touch one another, and no employee is permitted to have more than one lens in his or her hand at one time.

One entire department is devoted to wrapping or enclosing in envelopes, as the case may be, packing, labeling, shipping, etc.

An interesting feature of this big building is its Receiving Department, or, more properly, its Clearing House, situated at one end of the second floor. All goods coming from other buildings or passing from one department to another must go through this room, so that here the progress of every order is known and recorded. Thousands of dozens of lenses are "cleared" daily and so systematic is this work that there is a daily



Lens  
Drilling  
Room



View of Entire AOCO Plant from Lower End of Lensdale Factories





balance sheet kept, giving accurate statistics of work done in every part of the Lensdale organization.

The building upon the southern boundary of the Lensdale property is largely used as a warehouse for the storage of all materials necessary in lens manufacture. Here may be seen hundreds of tons of optical glass cut to approximate size and gauged to thickness. Tons and tons of emery, corundum, rouge and such materials are kept here; also parts of machinery, grinding discs and supplies, ready for instant use. Part of this building is devoted to the chemical and physical laboratories of our Research Bureau, looking toward improvements in goods and methods.

### DESIGNATION OF LENS SELECTIONS

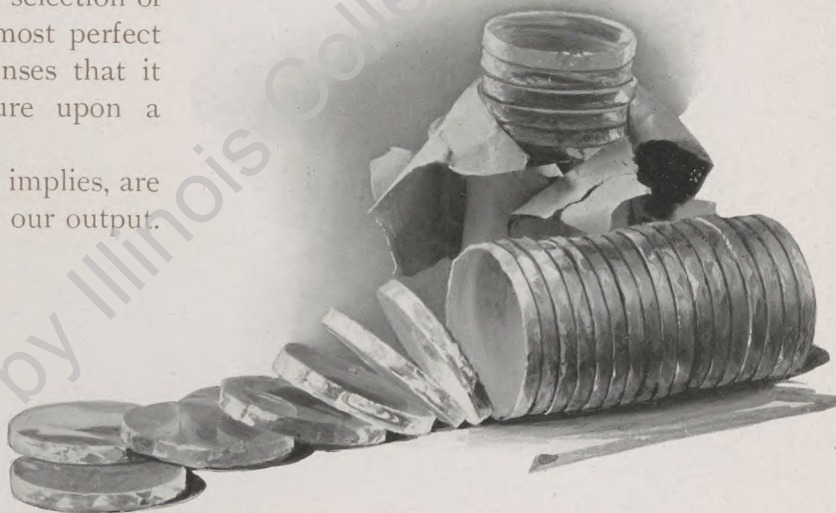
In order that a quality designation might represent a definite standard in lens production the American Optical Company has prescribed certain limits above which all lenses must qualify to be considered as the first selection. These high standards, with actual examples of lenses coming within their respective classes, are carefully recorded and filed. Lenses coming within the first selection are designated by the registered name, CENTEX.

The exacting demands of modern optical practice make it imperative that all lenses for high grade prescription work measure up to the requirements guaranteed under the CENTEX trade mark and it is vitally important that lens orders should specify CENTEX.

CENTEX lenses are produced from colorless crown specially manufactured optical glass of unvarying refractive index, dispersion and hardness, free from defects such as decentration, and from surface defects as scratches, flakes, etc. CENTEX lenses represent the first selection of our output and are the most perfect spectacle and eyeglass lenses that it is possible to manufacture upon a commercial scale.

SECONS, as the name implies, are the second selection from our output.

Lens Blanks Before Grinding







## AMERICAN OPTICAL COMPANY GLASS

White Glass American Optical Company white optical glass is a colorless crown specially manufactured stock of uniform density, great mechanical hardness and unvarying index of refraction, remarkable for its whiteness, its clearness, its freedom from "seeds", pits, striae and bubbles. This company consumes the entire output of great European glass works where exist ideal conditions and environment for making a raw product eminently suited to the manufacture of spectacle lenses. This glass is of the highest quality in all its physical properties.

Blue and Smoke Glass Great care and attention is devoted to the selection of these important colors and their classification according to defined standards in shades and thickness. In focused lenses it is necessary to allow a variation of one-half shade either way. Shades are classified from Nos. 0 to 7, light to dark.

Amber Glass Within the past few years there has developed an unusually large demand for amber lenses. They are used particularly for auto goggles, shooting and driving spectacles. In focused lenses, only one shade (light) is regularly supplied. In plano, bent, coquille and mi-coquille forms we furnish both the light and dark amber.



Office Research Bureau

Pink and Amethyst Glass The demand for these colors is so limited that we furnish pink and amethyst lenses only upon special order.

Euphos Glass This glass has come into use within the past few years and is preferred by many over amber glass. It is of a yellow-green shade. We carry a large stock of this material in the rough form as well as some forms of finished lenses, as may be noted on the following pages.

Roentgen Glass As the name suggests, Roentgen glass is used



in spectacles worn by X-Ray operators. It is said to exclude the injurious rays of the Roentgen light, protecting the operator's eyes from X-Ray burn, a particularly dangerous affliction. Furnished in white only.

Pebble The hardness of pebble makes its universal employment for spectacle lenses somewhat impractical, as it necessitates special machinery, slow and expensive processes in every operation of manufacture from sawing the raw stock to edging and drilling the finished lenses.

### INSTRUCTIONS FOR ORDERING LENSES

The following instructions, while intended particularly for the attention of our customers, contain many suggestions that may be found of great assistance to the entire trade and we recommend a careful reading:

1. Order Books All orders for lenses should be written on order sheets furnished by us in book form free of charge. Two forms of order blanks are necessary for which separate order books are furnished, marked respectively "*AOC<sub>o</sub> Lens Orders*" and "*AOC<sub>o</sub> Sphero Cylinder Lens Orders*". Detailed information for the use of these forms is printed in the front of order books and is very important. Orders for all lenses except Sphero Cylinders, Sphero Cylinder Torics and Other Curve Wafers should be entered on the regular form.
2. Description of Goods Avoid the use of questionable abbreviations and ditto marks. Use only descriptions and abbreviations employed in this catalogue in writing lens orders.
3. Dioptral System All focal powers should be written in the dioptral system. All powers of prisms should be written in prism dioptries expressed by the exponent  $\Delta$ .
4. Foci Our regular stock foci are given on page 202. When necessary to manufacture special foci to order an extra charge is made.
5. Quantity Lenses are always considered as pairs, the quantity being expressed in dozens or fractions of a dozen. Thus orders for three pairs should be written " $\frac{1}{4}$  doz.": an order for a single lens should be written " $\frac{1}{8}$  doz.", etc. Particular emphasis is placed upon this rule as applying to orders written on Sphero Cylinder order sheets.
6. Thickness Order should so state when rimless (R) thickness is desired, otherwise standard thickness is supplied. Rough lenses and optical blanks should be ordered to mm. thickness. Thicknesses of uncut lenses are given in tables, page 203. Sphero Cylinder lenses of standard and rimless thickness should be ordered on separate sheets.
7. Drilling Holes are drilled in rimless lenses to an accepted standard measured from the nearest edge of the hole to the edge of the lens. In ordering rimless lenses it is necessary to specify number of holes to the pair: in the absence of such instructions lenses are sent undrilled, "no holes". "Two holes" would be interpreted as one hole in each lens. Holes are always drilled on center unless otherwise specified.



8. Size of Eye All edged lenses should be ordered by number or letter indicating size of eye desired: when special sizes are wanted millimeter dimensions should be given. An extra charge is made for sizes other than regular.

9. Special Segments Orders for special segments other than regular 1.25 curve and Plano should be entered on AOC<sub>o</sub> Sphero Cylinder order sheets giving the two curvatures desired, not the focal power, same as in ordering Sphero Cylinders.

10. Reserve and Advance Orders By keeping statistics on previous sales it is possible to foresee future requirements and place orders in advance for subsequent delivery. Under certain conditions (see Introductory Section), we accept Reserve Orders for lenses which are made ready and held subject to the call of customers.

Important In ordering it is essential that orders should be read over carefully to ascertain whether all necessary details are entered against each item. It is desirable, in writing orders, to be brief and explicit, and thus avoid misunderstandings and delays consequent to the sending of order inquiries.

Always specify whether CENTEX or SECONS are desired.



Inspection Department, Lensdale



## AOCO LENS STOCK

Few besides those directly concerned in the manufacture of spectacle and eyeglass lenses have any definite conception of the quantity and multiplicity of kinds of lenses that are necessary to meet even the ordinary (to say nothing of the special) requirements of the optical trade. The combination of focal powers, thickness, sizes, forms, colors, edges, special details, etc., run into many hundred thousand kinds and the quantity which must be carried in AOCO stock of each kind multiplies the actual number of lenses into *millions*.

This vast lens stock must be systematically stored and recorded and forms a most important link in the AOCO service to customers, representing a great investment of capital made so that orders for lenses may be filled with no delay.

On the pages which follow we give concise lists of lenses regularly carried in AOCO stock. By no means do we intend to imply that the sizes and foci given are all that can be furnished, as we are prepared to make and are making all lenses for which there is any demand, and when the demand for any goods is sufficient to warrant doing so we at once add those kinds to AOCO stock. For instance, it would be manifestly impractical to carry edged Toric compounds in stock, so these lenses are carried only in the uncut form, see page 215.



Uncut Lens Stock Room, Lensdale



## AOCO STOCK FOCI AND TELEGRAPH CODE

The following table gives the foci of lenses and powers of prisms regularly carried in AOCO stock. For example Uncut White Periscopic Convex lenses are quoted as carried in stock 34 x 44 mm., 0.12 to 8.00, see page 213. This means that our stock under this classification includes all the powers in the following table between and including those named:

Spherical			Cylindrical			Toric 6. D. Base Curve		
Focus Dioptries	Code for Convex Curves	Code for Concave Curves	Focus Dioptries	Code for Convex Curves	Code for Concave Curves	Focus Dioptries	Code for Convex Curves	Code for Concave Curves
.12	Skeel	Search	.12	Commerce	Cricket	.12 Cyl.	Thatch	Tub
.25	Skiff	Seam	.25	Commode	Crisis	.25	Theist	Tube
.37	Skull	Script	.37	Common	Critic	.37	Thew	Tuck
.50	Sketch	Screw	.50	Compass	Cross	.50	Thing	Tuft
.56	Still	Smart	.62	Complex	Crown	.62	Thigh	Tug
.62	Skout	Screen	.75	Concern	Crumb	.75	Thirst	Tulip
.75	Skate	Scrap	.87	Cone	Crystal	.87	Thack	Tucan
.81	Strap	Snipe	1.	Congress	Culprit	1.	Thole	Tune
.87	Size	Scotch	1.12	Cause	Coast	1.12	Thallus	Tugger
1.	Sky	Scoop	1.25	Concord	Current	1.25	Thong	Tunic
1.12	Strip	Solar	1.37	Cash	Cloud	1.37	Tharms	Tull
1.25	Six	Science	1.50	Consul	Cutter	1.50	Thorn	Turban
1.31	Strop	Solute	1.62	Car	Clock	1.62	Theban	Tumbler
1.37	Stud	Song	1.75	Contra	Custom	1.75	Thistle	Tumid
1.50	Sink	School	2.	Cool	Cushion	2.	Thresh	Turf
1.62	Style	Sort	2.25	Concert	Curve	2.25	Thread	Turn
1.75	Sin	Scholar	2.50	Copper	Cube	2.50	Threat	Turret
2.	Silver	Scent	2.75	Copy	Cubic	2.75	Thresh	Turtle
2.25	Silk	Scar	3.	Coral	Cuckoo	3.	Threw	Tusk
2.50	Sign	Scale	3.25	Cord	Cudden	3.25	Thrift	Tutor
2.62	Supply	Spark	3.50	Comet	Cue	3.50	Thrill	Turnip
2.75	Siege	Saw	3.75	Consort	Cuff	3.75	Thrive	Tumor
3.	Side	Sand	4.	Corsair	Culture	4.	Throb	Tunnel
3.25	Sick	Salt	4.25	Cost	Cup	4.25	Throe	Turbot
3.50	Shrew	Saint	4.50	Cork	Cupola	4.50	Throne	Tureen
3.75	Show	Saddle	4.75	Count	Curley	4.75	Thrum	Turgid
4.	Shot	Sabre	5.	Counter	Curtain	5.	Thrust	Twang
4.25	Shoal	Sack	5.25	Calk	Citizen	5.25	Thumb	Twig
4.50	Ship	Saba	5.50	Corona	Custard	5.50	Thump	Twill
4.75	Shield	Sacred	5.75	Calibre	Circus	5.75	Thwart	Twirl
5.	Sheet	Sail	6.	Counsel	Cuban	6.	Thyme	Twit
5.25	Sway	Spirit	6.50	Courage	Cuirass			
5.50	Sheath	Sage	7.	Court	Cumber			
5.75	Swell	Spline	7.50	Cow	Culvert			
6.	Sharp	Saline	8.	Crab	Cupid			
6.50	Sextant	Sallet	8.50	Calme	Church			
7.	Settle	Salve	9.	Cradle	Cursor			
7.50	Session	Saltant	9.50	Cake	Christ			
8.	Service	Sandal	10	Craft	Cystic	.50	Pace	9. Pepper
8.50	String	Spoon	10.50	Cairo	Chord	.75	Parish	10. Period
9.	Sebate	Sample	11.	Crane	Cyprus	1.	Paddle	11. Person
9.50	Swipe	Spray	12	Cravatte	Cynic	1.50	Pagan	12. Petal
10.	Sedan	Salute	13	Crayon	Cymbal	2.	Pail	13. Piece
10.50	Swivel	Spring	14.	Creation	Cyma	2.50	Paint	14. Pilgrim
11.	Secess	Sally	16.	Credit	Cycle	3.	Palace	15. Pillow
12.	Section	Sagene	18.	Creed	Cypress	3.50	Palette	16. Pine
13	Secant	Sabian	20.	Crescent	Czar	4.	Panic	17. Plank
14.	Secret	Sabot				5.	Parrot	18. Play
15.	Secol	Sare				6.	Peace	19. Plate
16.	Secle	Sacrist				7.	Pedal	20. Plume
18.	Second	Savage				8.	Pension	
20.	Season	Saturn						

Prism			
$\Delta$	Code	$\Delta$	Code
.50	Pace	9.	Pepper
.75	Parish	10.	Period
1.	Paddle	11.	Person
1.50	Pagan	12.	Petal
2.	Pail	13.	Piece
2.50	Paint	14.	Pilgrim
3.	Palace	15.	Pillow
3.50	Palette	16.	Pine
4.	Panic	17.	Plank
5.	Parrot	18.	Play
6.	Peace	19.	Plate
7.	Pedal	20.	Plume
8.	Pension		

The following foci are furnished without extra charge but only in White Spherical Centex: 0.68, 1.87, 2.12, 2.37, 2.87, 6.25, 6.75. Code for Spherical (double), Cylinder and Prism, is for White lenses finished on both sides, of standard thickness.

Add the words Rough, Plano, Periscopic, Meniscus, Amber, Blue, Smoke or Rimless when lenses of this description are wanted. Use Spherical and Cylinder code words together for Sphero Cylinder combinations.

Code for Toric is for one surface, the other surface to be designated Rough, Plano or Spherical as desired. If Spherical, use word for foci wanted.

Cylinders are supplied from stock in foci from 0.12 to 8.00, inclusive, only.



## CENTER THICKNESS OF UNCUT LENSES

Focus Dioptries	Double Convex { 34 x 44 mm. Peris. Convex { 42 mm. Round Plano + Cylinder Sphero Cylinder when + Curve predominates		47 mm. Round Meniscus — 6. D. Curve Convex Peris. Convex		Double Concave { 34 x 44 mm. Peris. Concave { 42 mm. Round Meniscus + 6. D. Curve Concave Sphero Cylinder when — Curve predominates		Plano Cylinder all foci	
	Standard mm.	Rimless mm.	Standard mm.	Rimless mm.	Standard mm.	Rimless mm.	Standard mm.	Rimless mm.
.12	1.3	1.7	1.3	1.7	1.4	1.8	1.4	1.8
.25	1.3	1.7	1.3	1.7	1.4	1.8		
.37	1.3	1.7	1.4	1.8	1.4	1.8		
.50	1.4	1.8	1.4	1.8	1.4	1.8		
.62	1.4	1.8	1.5	1.9	1.4	1.8		
.75	1.4	1.8	1.5	1.9	1.3	1.7		
.87	1.5	1.9	1.5	1.9	1.3	1.7		
1.	1.5	1.9	1.6	2.	1.3	1.7		
1.12	1.5	1.9	1.6	2.	1.2	1.6	8.50	4.1
1.25	1.6	2.	1.7	2.1	1.2	1.6	9.	4.4
1.37	1.6	2.	1.7	2.1	1.2	1.6	9.50	4.6
1.50	1.6	2.	1.8	2.2	1.1	1.5	10.	4.7
1.62	1.7	2.1	1.8	2.2	1.1	1.5	10.50	4.9
1.75	1.8	2.2	1.9	2.3	1.	1.4	11.	5.1
2.	1.9	2.3	2.	2.4	1.	1.4	11.50	5.2
2.25	2.	2.4	2.1	2.5	1.	1.4	12.	5.3
2.50	2.	2.4	2.2	2.6	.9	1.3	12.50	5.4
2.62	2.1	2.5	2.2	2.6	.9	1.3	13.	5.6
2.75	2.1	2.5	2.3	2.7	.9	1.3	13.50	5.8
3.	2.2	2.6	2.4	2.8	.8	1.2	14.	6.
3.25	2.3	2.7	2.5	2.9	.8	1.2	15.	6.5
3.50	2.4	2.8	2.6	3.	.8	1.2	16.	6.9
3.75	2.5	2.9	2.7	3.1	.8	1.2	17.	7.4
4.	2.6	3.	2.8	3.2	.8	1.2	18.	7.8
4.25	2.7	3.1	2.9	3.3	.8	1.2	19.	8.3
4.50	2.8	3.2	3.	3.4	.8	1.2	20.	8.8
4.75	2.9	3.3	3.1	3.5	.8	1.2		
5.	3.	3.4	3.2	3.6	.7	1.1		
5.25	3.	3.4	3.3	3.7	.7	1.1		
5.50	3.1	3.5	3.4	3.8	.6	1.		
5.75	3.2	3.6	3.5	3.9	.6	1.		
6.	3.3	3.7	3.6	4.	.6	1.		
6.50	3.5	3.9	3.8	4.2	.6	1.		
7.	3.7	4.1	4.	4.4	.6	1.		
7.50	3.9	4.3	4.2	4.6	.6	1.		
8.	4.	4.4	4.4	4.8	.6	1.		
							Prisms Edge Thickness, mm.	
							Standard	Rimless
							Plano to .87	1.2
							1. to 1.50	1.
							1.62 to 2.62	.8
							2.75 to 4.75	.6
							5. to 20.	.4

- Lenses are supplied in Standard and Rimless thickness. (Allowance .2 mm. each way.) The measurement given above is calculated for the center of the lens, except prisms, which are measured at apex.
- Lenses can be produced of a thickness varying from either of the above, but on special order and at a special price only.
- To determine the thickness in the center of Sphero Cylinder lenses:
  - + ⊕ +, add the curve of sphere and cylinder together and use convex cylinder table.
  - ⊖ —, use spherical curve only using concave spherical table.
  - + ⊖ —, use spherical curve only using convex cylinder table.
  - ⊖ +, if spherical curve is greater, subtract cylinder from sphere and use the concave spherical table.
  - ⊕ +, if cylinder curve is greater, subtract sphere from cylinder and use the convex cylinder table.



## SIZES OF UNCUT LENSES

Sizes	Oval	Round	Square	Coquille and Mi-coquille	Auto
Regular	34 x 44 mm.	42 mm.	42 mm.	33 x 44 mm.	
Large		47 mm.	47 mm.	40 x 50 mm.	42 x 51 mm.
Extra Large				50 x 60 mm.	54 x 63 mm.
Ultra Large				60 x 70 mm.	61 x 70 mm.

## STANDARD SIZES OF EDGED LENSES

Eye Size	Bevel Edge	Rimless Edge	Eye Size	Bevel Edge
2	26. x 35. mm.	27. x 36. mm.	A	24.7 x 38.5 mm.
1	27.5 x 36.5 mm.	28. x 37. mm.	B	22.5 x 39.5 mm.
0	28.8 x 37.8 mm.	29.5 x 38.5 mm.	C	21. x 36. mm.
00	30.7 x 39.7 mm.	31. x 40. mm.	D	20.7 x 35. mm.
000	32. x 41. mm.	32. x 41. mm.	F2	16.5 x 37. mm.
0000	35.5 x 44.5 mm.	35.5 x 44.5 mm.	F1	14.5 x 36.4 mm.
Jumbo	37.4 x 45.4 mm.	37.4 x 45.4 mm.	F0	15.1 x 37.7 mm.
			F00	16. x 39.5 mm.

## SPECIAL SIZES OF EDGED LENSES

Eye Size	Bevel Edge	Rimless Edge	Eye Size	Description
oF		31.5 x 38.5 mm.	oF	o Eye Full
ooF		33. x 40. mm.	ooF	oo Eye Full
X	38. mm. Round		X	Round
XX	36.3 mm. Round		XX	Standard Test Size
XXX	32. mm. Round		XXX	Small Test Size

## STANDARD SIZES OF EDGED SEGMENTS

Eye Size	Cement Bifocal	Perfection Bifocal	Opifex Bifocal
1			
0	13 x 25 mm.	13 x 25 mm.	18 mm. round
00			

## IMPORTANT INFORMATION

1. Focused blue and smoke lenses are supplied only in AOCo standard shades with allowance of one-half shade either way.
2. Focused amber lenses are supplied in only one shade, light. Coquille, Mi-coquille and Plano Amber lenses are supplied in two shades, light and dark. Light Amber transmits same percentage of light as No. 1 shade smoke; Dark Amber transmits same percentage of light as No. 4 shade smoke.
3. Pink and Amethyst glass carried in stock in the rough. Lenses in these colors ground to special order. *Additional charges apply when orders call for one or more of the following specifications:*
4. Lenses ordered to be gauged to exact mm. thickness which can be selected from stock.
5. Plano colored lenses ordered to match exact shade of sample. (Regular orders to match shade of sample are supplied with nearest standard shade without extra charge unless exact match is distinctly specified, when additional charge is made, as stated above.)
6. Coquille and Mi-coquille blue and smoke lenses ordered in shade No. 7.
7. Lenses ordered with polished edges.
8. Edged Spherical lenses ordered with center indicated.
9. Cement Wafers, Perfection Bifocal Uppers, Perfection Bifocal Loweres when ordered edged to center.
10. Lenses ordered to special size and shape other than listed.



*The Lens Dioptry* All AOC<sub>o</sub> Lenses are numbered in the generally-known and accepted Dioptral system. The unit of this system is a lens whose focal length for parallel rays is one meter. This unit is called one dioptry, usually expressed by the capital letter "D", thus: 1 D. A lens of twice this strength is said to have a focal power of two dioptries and a focal length of one-half meter; a 4 D lens has a focal length of one-quarter meter; a 0.50 D lens has a focal length of two meters, etc.

## POWER AND FOCAL LENGTH OF LENSES OF THE DIOPTRAL SYSTEM

Dioptral Power	Focal Length	Dioptral Power	Focal Length	Dioptral Power	Focal Length	Dioptral Power	Focal Length
Dioptries	Meters	Dioptries	Meters	Dioptries	Meters	Dioptries	Meters
0.12	8.0000	1.37	.7273	4.00	.2500	8.50	.1176
0.25	4.0000	1.50	.6667	4.25	.2353	9.00	.1111
0.37	2.6667	1.62	.6154	4.50	.2222	9.50	.1053
0.50	2.0000	1.75	.5714	4.75	.2105	10.00	.1000
0.56	1.7778	2.00	.5000	5.00	.2000	10.50	.0952
0.62	1.6000	2.25	.4444	5.25	.1905	11.00	.0909
0.75	1.3333	2.50	.4000	5.50	.1818	12.00	.0833
0.81	1.2308	2.62	.3809	5.75	.1739	13.00	.0769
0.87	1.1429	2.75	.3636	6.00	.1667	14.00	.0714
1.00	1.0000	3.00	.3333	6.50	.1539	15.00	.0667
1.12	.8889	3.25	.3077	7.00	.1429	16.00	.0625
1.25	.8000	3.50	.2857	7.50	.1333	18.00	.0555
1.31	.7619	3.75	.2667	8.00	.1250	20.00	.0500

*The Prism Dioptry* As prisms notably possess the property of apparently changing the position of objects seen through them we employ a system of measuring their relative strengths, originally proposed by Mr. Charles F. Prentice, M. E., and first adopted by us, in which the tangent distance between the object and its virtual image forms the basis of comparison. The tangent-deflection of one centimeter *theoretically* measured in a plane one meter from the prism is the unit of prismatic power and is called one prism dioptry, expressed by the exponent  $\Delta$ ; thus, 1  $\Delta$ .



AOC<sub>o</sub> Prentice Prismometric Chart

In measuring the refraction of prisms, however, the same as for lenses, it is necessary that the incident pencils of light should be composed of parallel rays, so that the *theoretic* distance of one meter must in practice be increased to at least six meters.

Therefore, the Prismometric Scale published by us, which is to be placed exactly six meters from the prism while sighting through the latter, represents the prism dioptry as a six-centimeter distance. Scales which are computed for a shorter distance than six meters have been placed upon the market, but are wholly unreliable.

The Dioptral system of numbering prisms alone possesses the great desideratum of establishing a direct and simple relation between the prism dioptry and the lens dioptry, as demonstrated by Mr. Prentice's law, that "a lens decentered 1 cm. will produce as many prism dioptries as the lens has dioptries of refraction." Thus a lens of 1 D decentered 1 cm. will afford 1  $\Delta$ ; a lens of 2 D decentered 1 cm. will produce 2  $\Delta$ , etc. The prism-dioptral power is also in direct proportion to the amount of decentration, so that a lens of 2 D decentered  $\frac{1}{2}$  cm. gives 1  $\Delta$ ; whereas, if the same lens is decentered 2 cm. it produces 4  $\Delta$ , and so on. It is, therefore, only the size of the lens which in practice will set a limit to its prismatic power.



## REGULAR FORMS OF AOCO LENSES

**W**E give below a brief description of the regular forms of AOCO glass, chunks, blanks, rough lenses and finished lenses. In ordering, it is necessary to state form of glass, blank or lens wanted as well as other details such as foci, size, thickness, color, etc. The strength of spherical lenses and plano combinations such as plano cylinder, plano prism, etc., are designated by their focal powers, not their surface curves. All compound forms, those having surfaces of different character such as spherocylinder, etc., must be ordered by giving both surface curves.

## OPTICAL GLASS SHEETS

Flat glass stock of varying thickness. Surfaces not ground.

## CHUNKS

Irregular shaped masses of glass for display purposes.

## GLASS BLANKS

Flat Glass discs, specially selected for quality, cut in convenient sizes for surface grinding.

Meniscus Glass discs, selected for quality and moulded to curve approximately the base curve of Meniscus lenses, for surface grinding.

## ROUGH FORMS

Plano Rough One side plano, the other side unfinished.

Sphero Rough One side spherical, the other side unfinished.

Meniscus Rough One side spherical + or — 6., the other side unfinished.

Cylinder Rough One side cylindrical, the other side unfinished.

Toric Rough One side toric + or — 6. or 9. base, the other side unfinished.

Prism Rough One side plano, the other side formed angular with reference to the plano side but unfinished.

## PLANO FORMS

Plano Both sides ground flat and parallel.

Meniscus Plano One side — 1.25 — 6. or — 9., the other side + 1.25 + 6. or + 9. respectively.

Mi-coquille Mechanically curved from a plano form; one side approximately — 2.50, the other side approximately + 2.50.

Coquille Mechanically curved from a plano form; one side approximately — 7.50, the other side approximately + 7.50.

## AUTO FORMS (NON-OPTICAL GLASS)

Cut to special shape required for various types of Auto Goggles and supplied flat or bent in cylindrical form. No focus. (See page 228.)



## SPHERICAL FORMS

Double Convex Both sides of equal convex spherical curve.

Double Concave Both sides of equal concave spherical curve.

Plano Convex One side plano, the other side convex spherical.

Plano Concave One side plano, the other side concave spherical.

Periscopic Convex One side  $- 1.25$  spherical, the other side convex spherical in excess of  $+ 1.25$ .

Periscopic Concave One side  $+ 1.25$  spherical, the other side concave spherical in excess of  $- 1.25$ .

Meniscus Convex One side  $- 6$ . spherical, the other side convex spherical in excess of  $+ 6$ .

Meniscus Concave One side  $+ 6$ . spherical, the other side concave spherical in excess of  $- 6$ .

Lenticular Convex Strong convex spherical portion in center of lens on one or both sides surrounded by plano surface, or by spherical surface to special order.

Lenticular Concave Strong concave portion in center of lens on one or both sides surrounded by plano surface. Lenticular forms used in cataract cases with convex and in strong myopia, with concave to lighten their weight. Supplied only on special order. If oval center is desired, order should so specify.

## CYLINDER FORMS

Plano Cylinder One side plano, the other side cylindrical convex or concave.

Sphero Cylinder One side spherical, the other side cylindrical convex or concave.

Cross Cylinder One side convex cylinder, the other side concave cylinder. Axis of cylinders crossed, usually at right angles.

Toric Plano Cylinder One side convex or concave spherical 6. or 9. The other side convex or concave toric. (See description Toric Lenses page 210.) Curve of sphere and base curve of toric surfaces the same.

Toric Sphero Cylinder One side convex or concave spherical, the other side convex or concave toric. Base of toric curve 6. or 9. Spherical curve other than base curve. (See description Toric Lenses, page 210.)

## PRISM FORMS

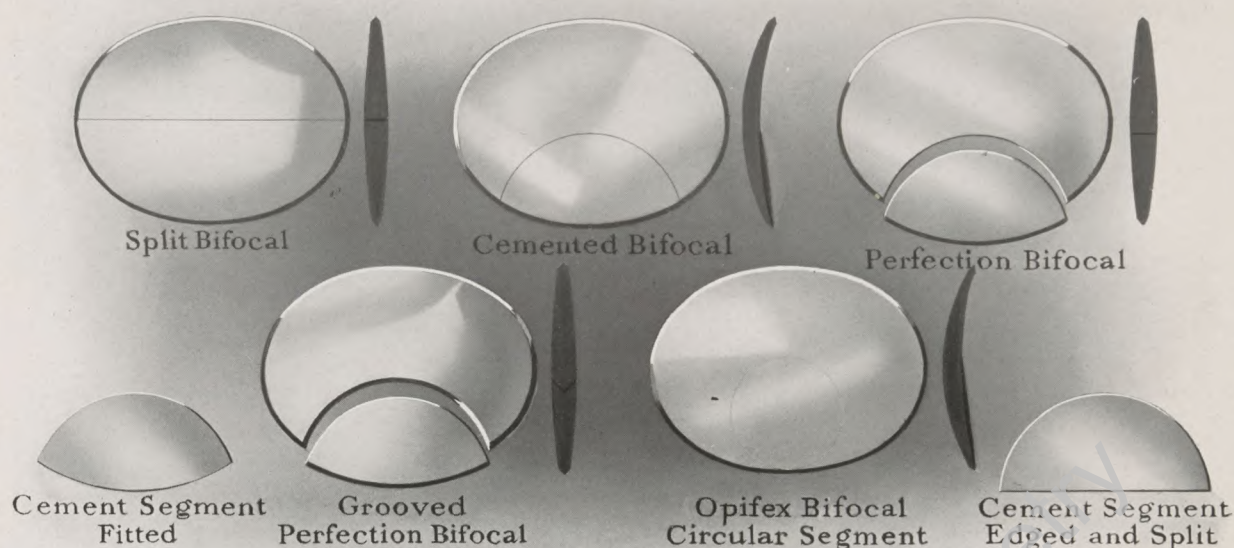
Plano Prism Both sides plano, forming an angle with reference to one another.

Sphero Prism One side spherical, the other side plano, forming an angle with reference to one another.

Cylinder Prism One side cylindrical, the other side plano, forming an angle with reference to one another.

For Bifocal forms, see pages 208 and 209.





### BIFOCAL FORMS OF AOCO LENSES

The Bifocal Lens, as its name indicates, has two foci, the upper for distance vision and the lower for reading or near work. The invention of Bifocal Lenses is accredited to Benjamin Franklin and, in fact, they were at one time termed "Franklin Glasses". Originally, double focus glasses were made in the form now commonly known as split bifocals, the two parts being equally divided or "split" through the center of the lenses.

*Perfection Bifocals, Double Convex* The Perfection Bifocal is a modified form of the "split" bifocal, in that it consists of two lenses fitted accurately together as shown in the accompanying illustrations. The lower lens is in the form of a segment of a circle, 13 x 25 mm. These parts are strictly interchangeable, but must be ordered to size of eye desired, so that the outside curvature of the completed lens may be regular.

The Perfection Bifocal is furnished in two forms, viz.: Grooved and Regular. The Grooved Perfection Bifocal has a bevel groove in its lower edge into which the bevel edge of the segment is fitted. In the regular form of Perfection Bifocal these edges are flat as with rimless edge lenses. It is only practical to use Perfection Bifocals in frames, consequently they are supplied only with bevel outside edge, sizes 1, 0, and 00 eye.



Cement Wafers (Periscopic.) These are thin reading lenses which may be cemented to the concave side of periscopic lenses to add near vision focal power (Convex) from  $+0.12$  to  $+8$ . D. The reading or near vision lenses are furnished as either round uncut wafers or edged segments. Uncut wafers are 19, 30 or 38 mm. in diameter, edged segments are furnished for 1, 0 or  $\infty$  eye,  $13 \times 25$  mm.

Cement Wafers (Plano and Other Curves.) When the distance vision lens is other than periscopic or plano, other curve wafers must be ordered to match the curves of the surface to which the segments are to be attached. Plano wafers are furnished uncut round 30 and 38 mm. diameter; other curve wafers, uncut round, 30 mm. diameter only. Edged segments supplied same size for 1, 0 and  $\infty$  eye,  $13 \times 25$  mm. Cement wafers, all kinds, may be furnished edged and split, that is, the circular upper edge is finished and the wafer split ready for cementing, after which the optician may finish the lower edge flush with the edge of the distance lens. Complete Cement Bifocals in periscopic form can be supplied from stock and in plano and other curves to order.

When so ordered we can furnish special sizes and shapes in all forms of edged segments.

Opifex Wafers (Patented.) The Opifex is a very satisfactory form of cemented bifocal. It comprises an extremely thin circular wafer supplied uncut 19 mm. or edged to 18 mm. diameter, which may be cemented to the concave side of a plano, periscopic or other curve distance lens. Opifex wafers are so thin that they would be extremely difficult to handle in the ordinary way, so they are always cemented on "bodies" or small lenses of the same opposite dioptric curvature, from which they are slid off on to the distance lenses to which they are to be attached, first being heated to melt the cement. When supplied uncut they are 19 mm. in diameter and also on bodies. The operation of edging is done while they are still attached to the body glasses, which produces a perfect knife edge. When cemented to the distance lens the Opifex wafer is practically invisible.

Kryptok Bifocals (Patented.) This lens is made by grinding a depression, or, as it is called, a countersink, in a disk of crown glass, into which a small flint disk of same opposite dioptric curvature is placed, the two parts being united by fusion forming an integral disk. When surfaced as any ordinary lens the Kryptok blank becomes a fused bifocal.

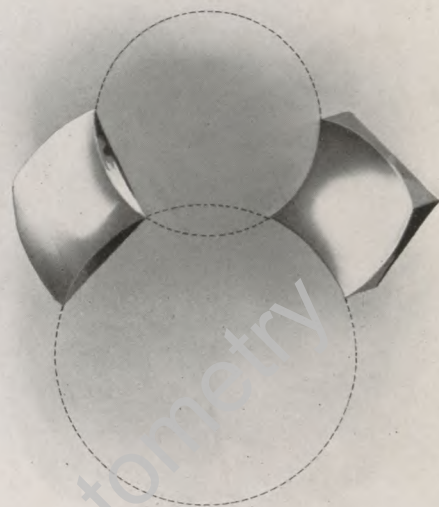
Full directions for selecting blanks and figuring focal combinations will be furnished upon request.

Split Bifocals The Split Bifocal consists of the combination of two half lenses of different dioptral power. Their straight edges are flat. No cement is employed and needless to say this type of lens can only be used in frames.



## AOCO CENTEX TORIC LENSES

The word "toric" is derived from the Latin "torus" or "tore", meaning the surface described by the circumference of a circle revolving about a straight line in its own plane. As applied to optics, it is a lens whose diametrically opposed principal meridians are of unequal refraction. By applying this principle to the grinding of a lens we are enabled to produce two curvatures of unequal radii on the same surface, leaving the reverse side for another curve, giving the opportunity for grinding a spherocylinder combination in periscopic form, which if desired may be made with a pronounced curvature which is the form commonly demanded. As supplied by us, Toric Lenses are made with a base curve (the weaker curve) of 6.00 and 9.00 D. We combine with any of the base curves, which represent the spherical power, stronger ones, representing the cylindrical power, ranging from 0.12 to 6.00 D.



Orders for Toric Lenses should be written the same as for spherocylinders, *always* adding instructions as to the base curve desired; the 6.00 base curve being at the present time most in demand and is supplied unless otherwise ordered.

*Rough Torics* We furnish Rough Toric Lenses, that is, rough on one side, but with the toric surface ground and polished, thus enabling the optician to grind any spherical curve he may desire on the rough side. With a comparatively small stock of Rough Toric Lenses an almost unlimited number of combinations can thus be made.

While more expensive than others, Toric Lenses possess a number of distinctive features and we anticipate a decided increase in their application as these advantages become more generally understood. They are now in use among many of the best oculists, optometrists and opticians, who claim for them many advantages over their spherocylinder equivalents. Among them may be mentioned the following:

1. They remove, to a great extent, the reflections which are so annoying to many.
2. They admit of their peripheral area being brought nearer to the eye, thus presenting an enlarged field of vision.
3. In many combinations (all high powers), they make a lighter-looking lens than their spherocylinder equivalent.
4. The curved surfaces of the lens are more concentric with the eyeball; thus in movements of the eye the visual axis will be less oblique to the inner surface of the lens, and the distance from the eye to all points on the surface of the lens more equal, thus requiring less change in the adjustment of the accommodation when looking through portions of the lens remote from its geometrical center. This makes Toric Lenses particularly desirable for all activities requiring a free and quick movement of the eye.
5. They are particularly commendable where bifocal lenses are required, as the segment for reading, owing to the form of the lens, inclines towards and meets the visual axis more nearly at right angles.

Many of the advantages enumerated above, attributed to the Toric Lens, are equally true of the Meniscus 6.00 and 9.00 curve lens, which is the spherical form developed to fulfill the same useful purpose.

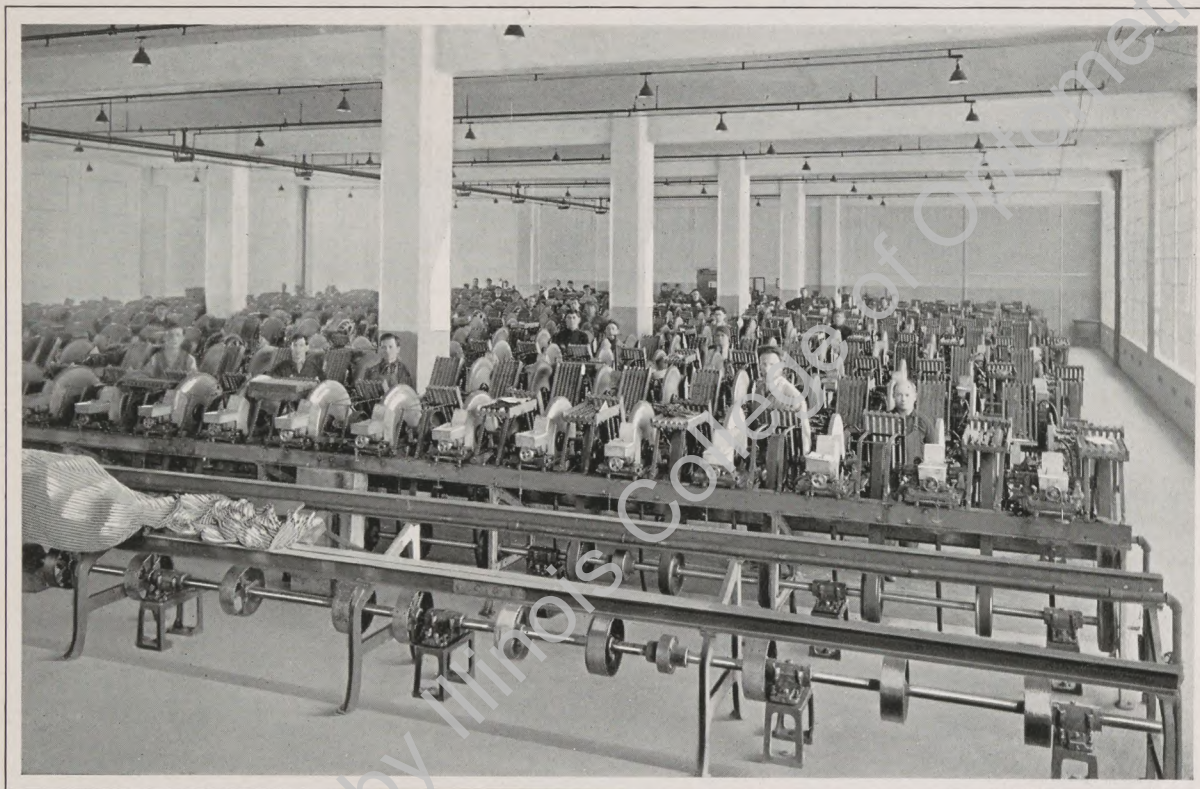


## AOCO CENTEX "47" LENSES

We attach special significance to the fact that all of the more important forms of AOCO Uncut Centex Lenses are now supplied in the large 47 mm. size, either round 47 mm. diameter in the plano, spherical, cylinder and spherocylinder forms, or square with rounded corners 47 mm. in the toric and Kryptok bifocal forms.

The growing demand for lenses of large eye sizes makes it essential that uncut lenses be large enough to furnish every prescription requirement at any desired axis. This is manifestly impossible in many cases with the 42 mm. square or 34 x 44 mm. oval lenses.

Centex "47" Lenses combining as they do the high quality standard guaranteed under the registered name "Centex" with a size that makes them universally adapted to the demands of modern prescription work are the most advanced forms of the uncut lens product that have ever been offered. We are strongly advocating the general adoption of the 47 mm. lens as a stock size. The growing demand for Centex "47" Lenses is indicative of a general appreciation by the trade of the superior excellence of these desirable goods.



Edge Grinding Room, Lensdale





AOCO CENTEX LENSES  
SPHERICAL

For description, see opposite page



## AOCO CENTEX LENSES

## UNCUT SPHERICAL

SHAPE	SIZE	THICKNESS	STOCK FOCI
Meniscus Convex and Meniscus Concave, 6. Curve (White, Amber)			
Round	47	Standard and Rimless	0.12 to 8.
Periscopic Convex and Periscopic Concave, 1.25 Curve (White, Amber, Blue, Smoke)			
Oval	34 x 44	Standard and Rimless	0.12 to 8.
Periscopic Convex and Periscopic Concave, 1.25 Curve (White)			
Round	42 and 47	Standard and Rimless	0.12 to 8.
Round	42	Standard (strong curves)	8.50 to 20.
Oval (Pebble, axis cut)	34 x 44	Standard	0.12 to 8.
Double Convex and Double Concave (White)			
Oval	34 x 44	Standard and Rimless	0.12 to 8.
Round	42 and 47	Standard and Rimless	0.12 to 8.
Round	42	Standard (strong curves)	8.50 to 20.
Plano Convex and Plano Concave (White)			
Round	42 and 47	Standard and Rimless	0.12 to 8.
Round	42	Standard (strong curves)	8.50 to 20.

## EDGED SPHERICAL

EDGE	STOCK EYE SIZES	STOCK FOCI
Meniscus Convex and Meniscus Concave, 6. Curve (White)		
Bevel	1, 0, 00 and 000	0.12 to 8.
Rimless	0, 00, 000, 0 F and 00 F	0.12 to 8.
Periscopic Convex and Periscopic Concave, 1.25 Curve (White)		
Bevel	1, 0, 00 and 000	0.12 to 8.
Rimless	0, 00, 000, 0 F and 00 F	0.12 to 8.
Bevel (Pebble, axis cut)	1, 0, 00 and 000	0.12 to 8.
Rimless (Pebble, axis cut)	0, 00, 000, 0 F and 00 F	0.12 to 8.
Double Convex and Double Concave (White)		
Bevel	1, 0, 00 and 000	0.12 to 8.
Rimless	0, 00, 000, 0 F and 00 F	0.12 to 8.
Plano Convex and Plano Concave (White)		
Bevel	1, 0, 00 and 000	0.12 to 8.
Rimless	0, 00, 000, 0 F and 00 F	0.12 to 8.

All above sizes and foci regularly carried in AOCO stock. Other sizes and foci will be manufactured to order.

Rimless Edge Lenses can be supplied from AOCO stock, drilled 2, 3 and 4 holes to pair, on center. Lenses drilled off center supplied on special order.

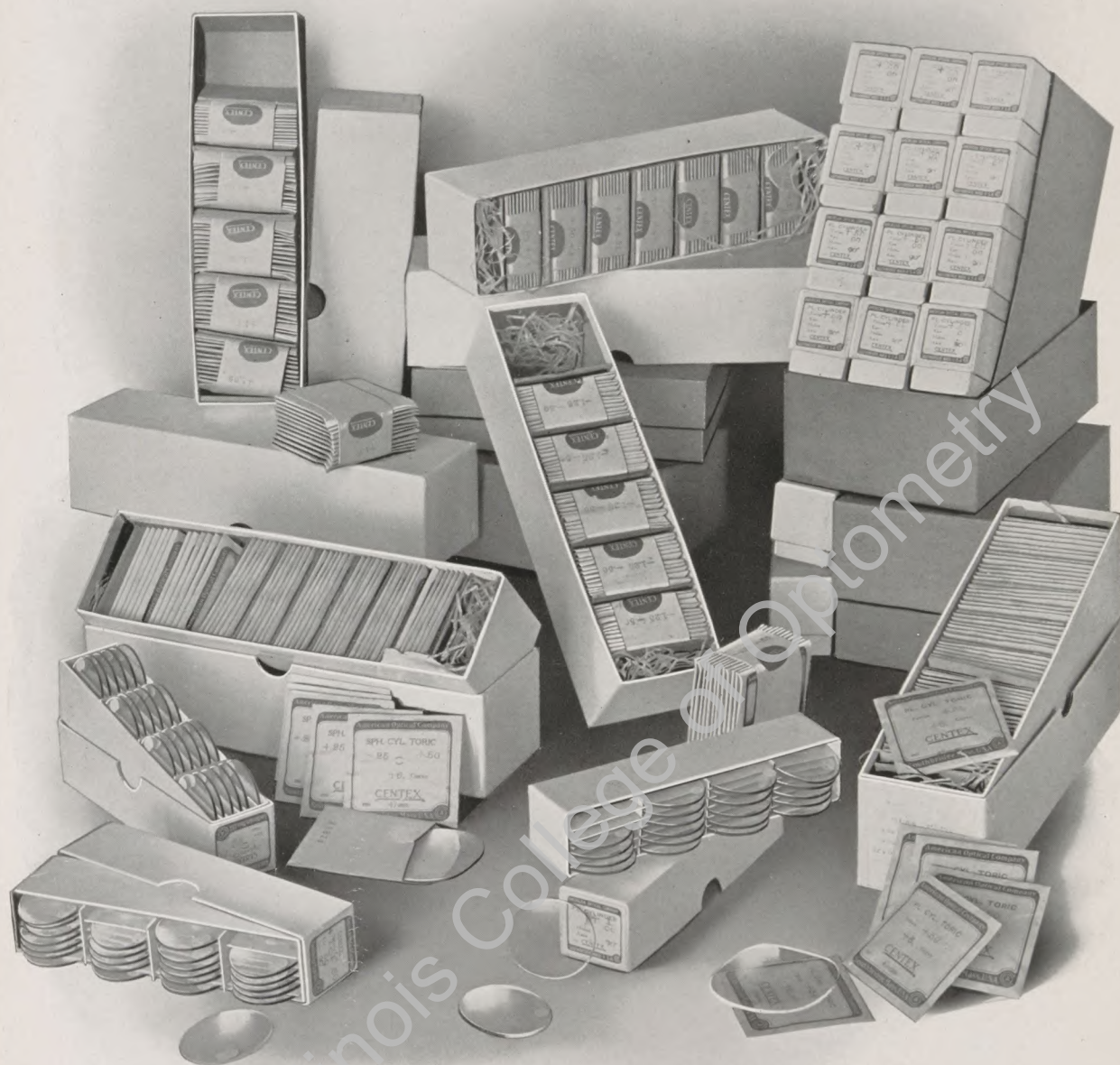
Plano Lenses in Flat and Meniscus Form will be found on page 219.

Polished Edge Lenses supplied from stock in 0 and 00 eye in Periscopic Convex and Double Convex.

Uncut Meniscus Amber Lenses to 4.25 only.

For "Secons", see page 225.





AOCO CENTEX LENSES  
TORIC AND CYLINDER

For description, see opposite page



# AOCO CENTEX LENSES

## UNCUT TORIC AND CYLINDER

SHAPE	SIZE	THICKNESS	STOCK FOCI
Toric Plano Cylinder Convex and Toric Plano Cylinder Concave, + 6. Curve (White)			
Square, round corners - - -	47 - - -	Standard and Rimless - -	0.12 to 6.
Toric Sphero Cylinder + $\odot$ +, - $\odot$ -, + 6. Curve (White)			
Square, round corners - - -	47 - - -	Standard and Rimless - -	<div> 0.12 to 6. Sph.  0.12 to 4.25 Cyl. </div>
Plano Cylinder Convex and Plano Cylinder Concave (White, Amber Blue, Smoke)			
Square, round corners - - -	42 (axis diagonal) - -	Standard and Rimless - -	0.12 to 8.
Round - - -	47 - - -	Standard and Rimless - -	0.12 to 8.
Sphero Cylinder + $\odot$ +, - $\odot$ -, + $\odot$ -, - $\odot$ + (White)			
Square, round corners - - -	42 (axis diagonal) - -	Standard and Rimless - -	0.12 to 8.
Round - - -	47 - - -	Standard and Rimless - -	0.12 to 8.
Cross Cylinder + $\odot$ - (White)			
Square, round corners - - -	42 (axis diagonal) - -	Standard and Rimless - -	0.12 to 8.

## EDGED CYLINDER

EDGE	STOCK EYE SIZES	STOCK FOCI
Plano Cylinder Convex and Plano Cylinder Concave, Axis 90° and 180° (White)		
Bevel - - -	1, 0, 00, 000 - - -	0.12 to 8.
Rimless - - -	0, 00, 000, 0 F, 00 F - - -	0.12 to 8.
Sphero Cylinder + $\odot$ +, - $\odot$ -, + $\odot$ -, - $\odot$ +, Axis 90° and 180° (White)		
Bevel - - -	1, 0, 00, 000 - - -	0.12 to 8.
Rimless - - -	0, 00, 000, 0 F, 00 F - - -	0.12 to 8.

Above Lenses supplied in Centex only.

All above sizes and foci carried in AOCO stock. Other sizes and foci will be manufactured to order.

Drilled and Polished Edge Lenses supplied to special order.





AOCO CENTEX LENSES  
ROUGH

For description, see opposite page



## AOCO CENTEX LENSES

UNCUT<sup>\*</sup> ROUGH

One Side Ground and Polished — White, Amber, Blue, Smoke, Amethyst and Euphos

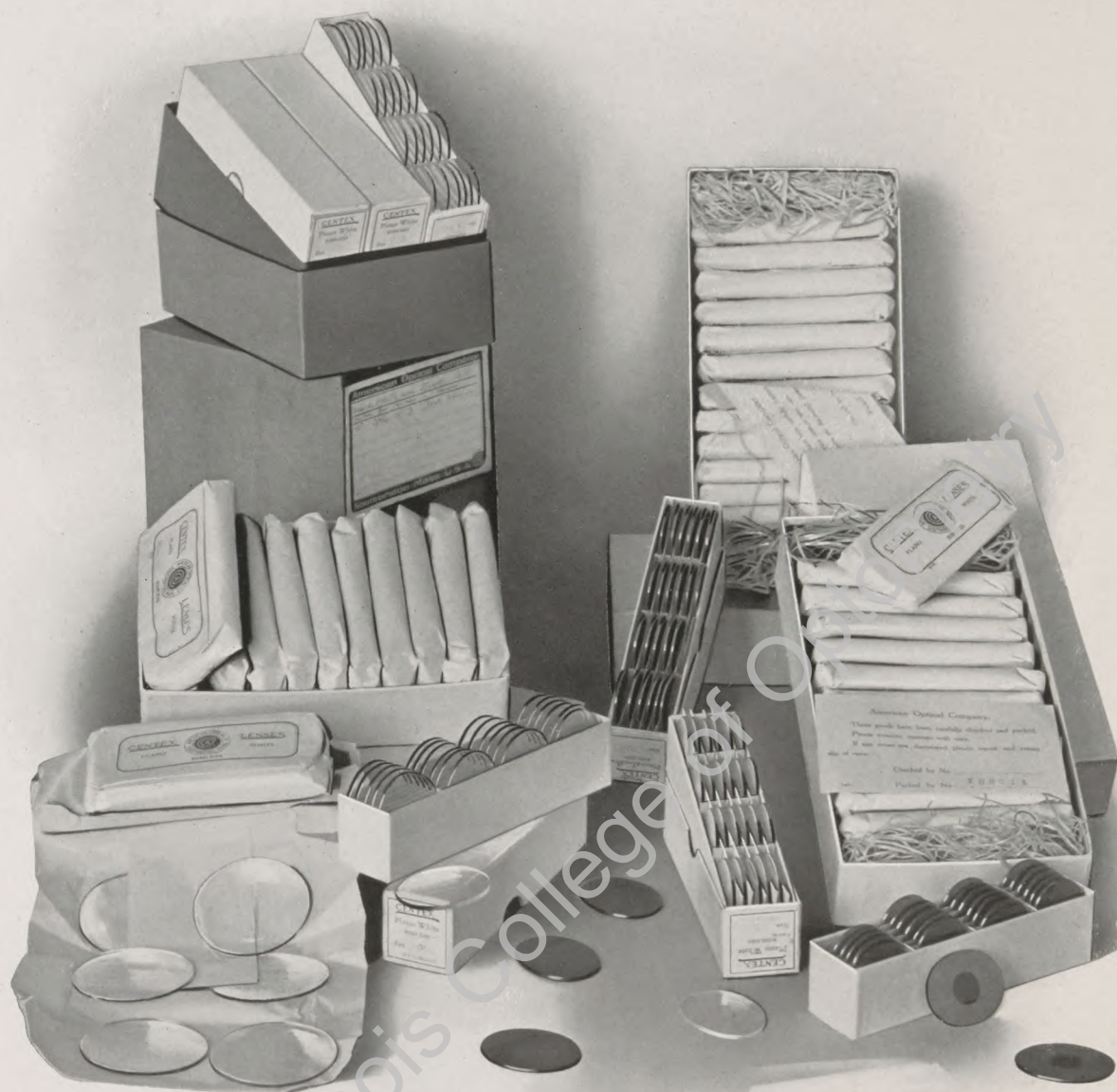
SHAPE	SIZE	THICKNESS—WHITE	THICKNESS—COLORED
Meniscus Rough + or — 6. Curve			
Round	47	2 to 7	2 to 5
Round	51	2 to 5	2 to 5
Round	63	2 to 5	
Sphero Rough + or — 0.12 to 8.			
Oval	34 x 44	2 to 7	
Oval	42 x 51	2 to 7	
Round	42	2 to 7	
Round	47	2 to 7	
Round	51	2 to 7	
Square	42	2 to 7	
Square	51	2 to 7	
Plano Rough			
Square, round corners	42	2 to 10	2 to 7
Square	47	2 to 7	
Square	51	2 to 7	
Square	63	2 to 7	
Square	71	2 to 7	
Square	80	2 to 7	
Toric Rough + or — 6. Curve, 0.12 to 6.			
Square, round corners	47	2 to 7	2 to 7
Cylinder Rough + or — 0.12 to 8.			
Square, round corners	42 (axis diagonal)	2 to 8	2 to 4
Round	47	2 to 4	2 to 4
Prism Rough 0.50 $\Delta$ to 10. $\Delta$			
Square	42	2 to 4*	2 to 4*

\*Thickness measured at Apex.

See Machinery Section for Grinding Machinery, Tools and Supplies.

Rough White Lenses supplied index 1.507 or 1.523 as ordered.





AOCO CENTEX LENSES  
PLANO

For description, see opposite page



## AOCO CENTEX LENSES

### UNCUT PLANO

SHAPE	SIZE	THICKNESS
Meniscus Plano, 1.25 Curve (White, Amber, Blue, Smoke)		
Oval	34 x 44	Standard and Rimless
Round	42	Standard and Rimless
Round	47	Standard and Rimless
Round	51	Standard
Round	63	Standard
Meniscus Plano, 6. Curve (White, Amber, Blue, Smoke)		
Round	47	Standard and Rimless
Round	51	Standard
Round	63	Standard
Round	71	Standard
Round	80	Standard
Meniscus Plano, 9. Curve (White, Amber, Blue, Smoke)		
Round	47	Standard
Flat Plano (White, Amber, Blue, Smoke, Euphos, Amethyst, Pink, Green)		
Oval	34 x 44	Standard and Rimless
Oval	54 x 63 (Auto)	Standard
Oval	61 x 70 (Auto)	Standard
Round	42	Standard and Rimless
Round	47	Standard and Rimless
Flat Plano (White Frosted)		
Round	42	Standard and Rimless

### EDGED PLANO

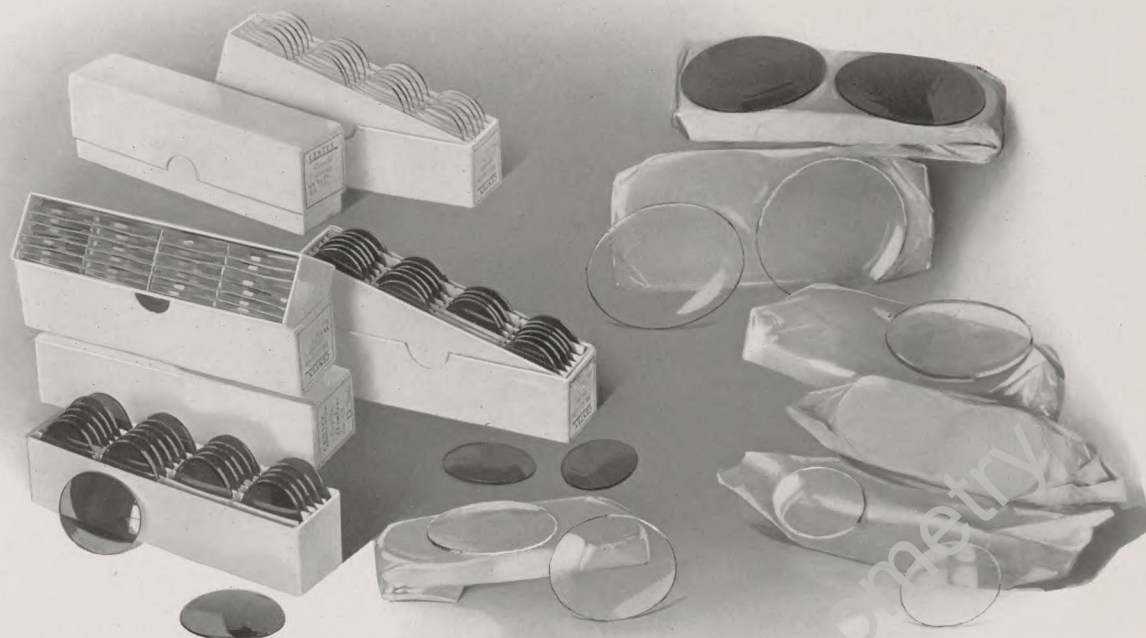
EDGE	STOCK EYE SIZES
Meniscus Plano, 1.25 Curve (White, Amber, Blue, Smoke)	
Bevel	1, 0, 00, 000
Rimless	0, 00, 000, 0 F, 00 F
Meniscus Plano, 6. Curve (White, Amber, Blue, Smoke)	
Bevel	1, 0, 00, 000
Rimless	0, 00, 000, 0 F, 00 F
Meniscus Plano, 9. Curve (White, Amber, Blue, Smoke)	
Bevel	1, 0, 00, 000
Rimless	0, 00, 000, 0 F, 00 F
Flat Plano (White, Amber, Blue, Smoke, Shooting)	
Bevel	1, 0, 00, 000
Rimless	0, 00, 000, 0 F, 00 F

Shooting Lenses are Amber Glass frosted except circular space in center for sighting.

All above sizes regularly carried in AOCO stock. Other sizes will be manufactured to order.

Rimless Edge Lenses can be supplied from AOCO stock drilled 2, 3 and 4 holes to pair, on center. Lenses drilled above or below center supplied on special order.





# AOCO CENTEX LENSES UNCUT COQUILLE AND MI-COQUILLE White, Amber and Smoke

SHAPE	SIZE MM	THICKNESS
Coquille (no focus)		
Oval	33 x 44	Standard
Oval	40 x 50	Standard
Oval	50 x 60	Standard
Oval	60 x 70	Standard
Mi-coquille (no focus)		
Oval	33 x 44	Standard
Oval	40 x 50	Standard
Oval	50 x 60	Standard
Oval	60 x 70	Standard

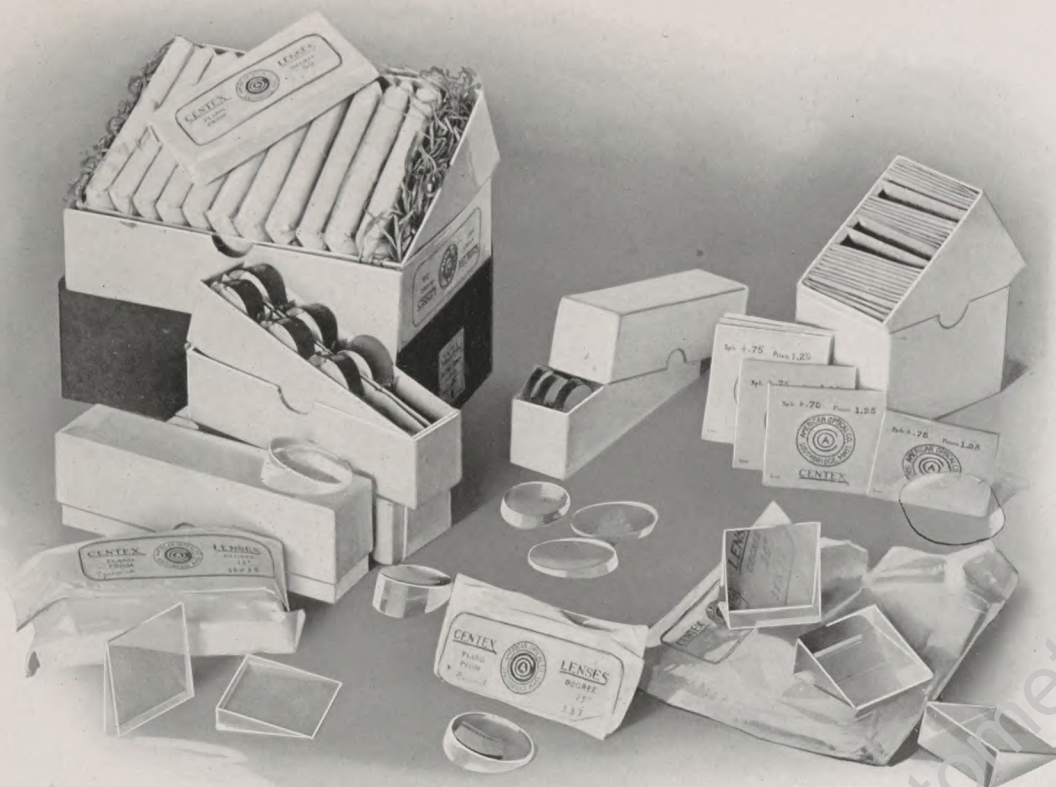
## EDGED COQUILLE AND MI-COQUILLE White, Amber and Smoke

EDGE	STOCK EYE SIZES
Coquille (no focus)	
Bevel	1, 0, 00 and 000
Rimless	0, 00 and 000
Mi-coquille (no focus)	
Bevel	1, 0, 00 and 000
Rimless	0, 00 and 000

Coquille Lenses have curve approximately 7.50 D.

Mi-coquille Lenses have curve approximately 2.50 D.





### AOCO CENTEX LENSES UNCUT PRISM White

SHAPE	SIZE	THICKNESS	POWERS
Plano Prism			
Square	- - - 42 - - -	Standard and Rimless	0.50 $\Delta$ to 10. $\Delta$
Square	- - - 42 - - -	Standard	11. $\Delta$ to 20. $\Delta$
Sphero Prism, Convex Spherical Curve combined with Prismatic Power			
Square	- - - 42 - - -	Standard and Rimless	0.12 to 4.25 Sph. 0.50 $\Delta$ to 3.50 $\Delta$
Cylinder Prism, Convex Cylinder Curve combined with Prismatic Power			
Square	- - - 42 - - -	Standard and Rimless	0.12 to 4.25 Cyl. 0.50 $\Delta$ to 3.50 $\Delta$

### EDGED PRISM White

SHAPE	EDGE	STOCK EYE SIZES	POWERS
Plano Prism			
Round	- - - Bevel - - -	X (38 mm.) and XX (36.3 mm.)	0.50 $\Delta$ to 20. $\Delta$
Square	- - - Rimless - - -	38 mm.	0.50 $\Delta$ to 20. $\Delta$
Oval	- - - Bevel - - -	1, 0, and 00	0.50 $\Delta$ to 20. $\Delta$

For description of Prism Dioptry, see page 205.

Above Lenses supplied in Centex only.

For Prism Sets and Prism Bar, see Trial Set Section of this catalogue.



## AOCO CENTEX LENSES

## UNCUT BIFOCAL

White

STYLE	SHAPE	SIZE	STOCK FOCI
Cement Wafers			
Plano Convex - - - - -	Round - - - - -	30 - - - - -	0.12 to 8.
Plano Convex - - - - -	Round - - - - -	38 - - - - -	0.12 to 8.
Periscopic Convex (+1.25 Curve) - - - - -	Round - - - - -	30 - - - - -	0.12 to 8.
Periscopic Convex (+1.25 Curve) - * - - - - -	Round - - - - -	38 - - - - -	0.12 to 8.
Other Curves, Convex - - - - -	Round - - - - -	30 - - - - -	0.12 to 8.
Opifex Wafers, Knife Edge on Bodies, Patented			
Plano Convex - - - - -	Round - - - - -	19 - - - - -	0.12 to 8.
Periscopic Convex (+1.25 Curve) - - - - -	Round - - - - -	19 - - - - -	0.12 to 8.
Other Curves, Convex - - - - -	Round - - - - -	19 - - - - -	0.12 to 8.
Kryptok, Patented. See page 224			

## EDGED BIFOCAL

White

STYLE	STOCK SIZE	STOCK FOCI
Cement Segments		
Plano Convex - - - - -	13 x 25 - - - - -	0.12 to 8.
Periscopic Convex (+1.25 Curve) - - - - -	13 x 25 - - - - -	0.12 to 8.
Other Curves, Convex - - - - -	13 x 25 - - - - -	0.12 to 8.
Opifex Wafers, Knife Edge on Bodies, Patented		
Plano Convex - - - - -	18 - - - - -	0.12 to 8.
Periscopic Convex (+1.25 Curve) - - - - -	18 - - - - -	0.12 to 8.
Other Curves, Convex - - - - -	18 - - - - -	0.12 to 8.
Kryptok, Patented. See page 224		
Perfection Uppers or Lower, Grooved or Regular		
Convex, bevel outer edge - - - - -	1, 0, 00, 000 - - - - -	0.12 to 8.

## COMPLETE BIFOCAL

White

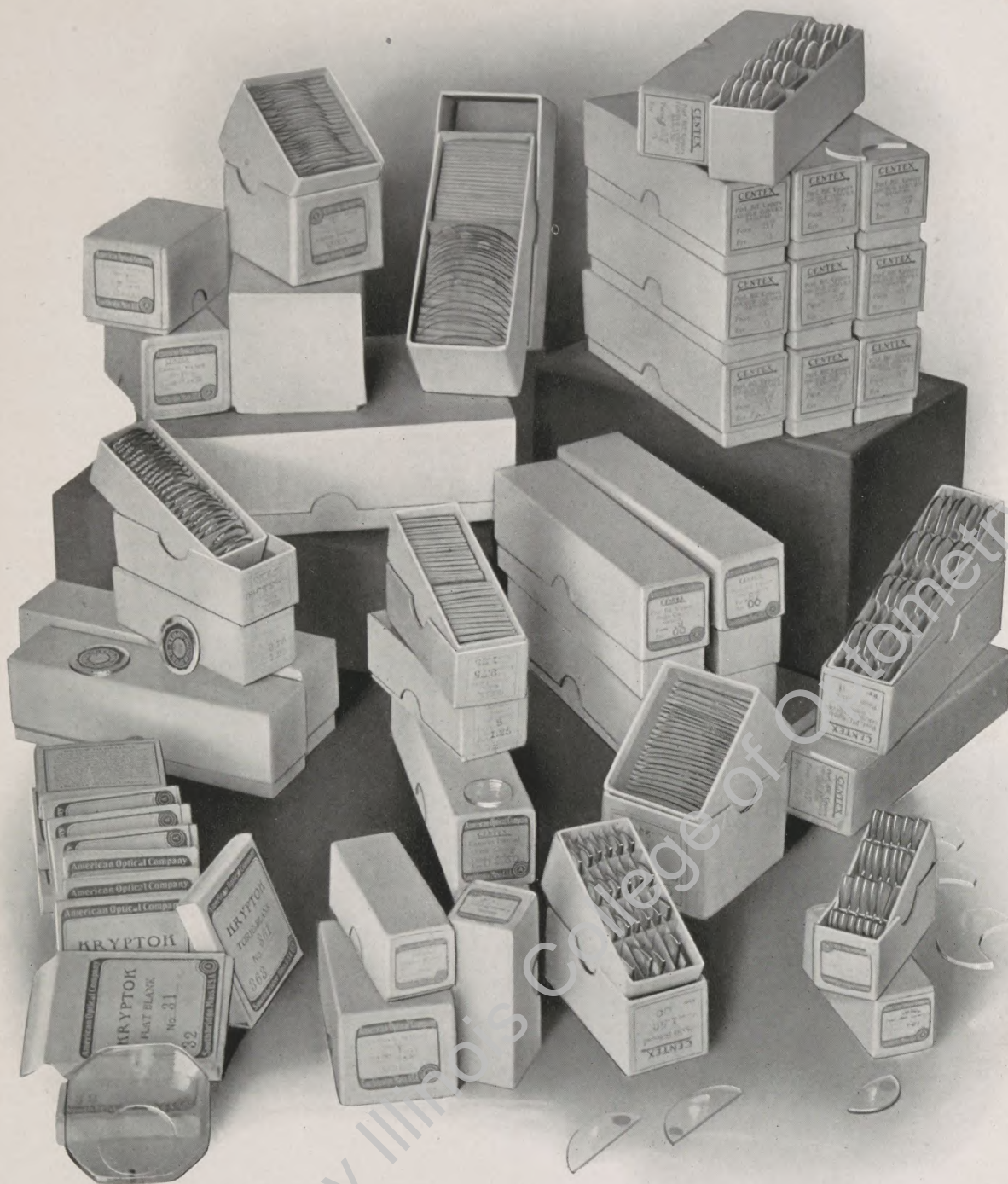
STYLE	EDGE	STOCK EYE SIZE	STOCK FOCI
Cement Bifocals			
Periscopic (+1.25 Curve) Convex Segment - - - - -	Bevel - - - - -	1, 0, 00, 000 - - - - -	0.12 to 8.
Periscopic (+1.25 Curve) Convex Segment - - - - -	Rimless - - - - -	0, 00, 000 - - - - -	0.12 to 8.
Opifex Bifocals, 18 mm. Segment, Patented			
Periscopic (+1.25 Curve) Convex Wafer - - - - -	Bevel - - - - -	1, 0, 00, 000 - - - - -	0.12 to 4.25
Periscopic (+1.25 Curve) Convex Wafer - - - - -	Rimless - - - - -	0, 00, 000 - - - - -	0.12 to 4.25
Meniscus (+6. Curve) Convex Wafer - - - - -	Bevel - - - - -	1, 0, 00, 000 - - - - -	0.12 to 4.25
Meniscus (+6. Curve) Convex Wafer - - - - -	Rimless - - - - -	0, 00, 000 - - - - -	0.12 to 4.25
Kryptok Bifocals, Patented. See page 224			
*Perfection Bifocals, Grooved or Regular			
Convex with Convex lowers - - - - -	Bevel - - - - -	1, 0, 00, 000 - - - - -	0.12 to 8.
Split Bifocals			
Convex with Convex lowers - - - - -	Bevel - - - - -	1, 0, 00, 000 - - - - -	0.12 to 8.

For "Secons" Bifocal Lenses, see page 225.

Edged and Split Cement Segments supplied on order.

\*Perfection Bifocals supplied complete when ordered set in frames.





AOCO CENTEX LENSES  
BIFOCAL

For description, see opposite page



## AOCO CENTEX LENSES

UNCUT KRYPTOK BIFOCAL. — PATENTED

White

FORM	SHAPE	SIZE	THICKNESS
Blanks			
Flat	Square, round corners	47	4 to 7
Toric	Square, round corners	47	4 to 7
Rough, one side ground and polished			
Flat	Square, round corners	47	3 to 6
Toric	Square, round corners.	47	3 to 6

All AOCO Kryptok blanks are tested for strain under the Colmascope.

*Finished Lenses* The finishing of Kryptok blanks and rough lenses is confined to the wholesale trade and to those dealers who are equipped to do surface grinding. We supply Kryptok blanks and rough lenses in the United States through licensed wholesalers. These are carried in AOCO stock in flat and toric (6. curve) form. They can be finished to any prescription as follows:

Plano	Cylinder	Plano Prism	Cylinder Prism
Sphero	Sphero Cylinder	Sphero Prism	Sphero Cylinder Prism

To render it easy to order these blanks and rough lenses we have prepared complete focus charts with comprehensive instructions as to their use. These will be gladly furnished free upon request to those interested.

AOCO Kryptoks have this Company's monogram embossed out of the surface of the blank in addition to the name Kryptok and the blank number. This is a certain means for the identification of the genuine AOCO Kryptok lenses.

An extra charge is made if any of the following special details are wanted on orders for Kryptoks:

Colored Lenses.

Lenses larger than can be made from the regular 47 mm. blanks.

Flat blanks with convex or concave curve greater than 4. D.

Flat blanks thicker than 7 mm.

Cataract Lenses (8.50 to 20. D).

Segments larger than regular size.

Toric blanks with segments fused on inner curve.

Kryptok lenses are manufactured by the AOCO under license issued by patentees by virtue of U. S. patents Nos. 637, 444 (Nov. 21, 1899) and 876, 933 (Jan. 21, 1908).



## AOCO SECONS LENSES

## UNCUT SPHERICAL

White

SHAPE	SIZE	THICKNESS	STOCK FOCI
Periscopic Convex and Periscopic Concave, 1.25 Curve			
Oval	34 x 44	Standard and Rimless	0.12 to 8.
Double Convex and Double Concave			
Oval	34 x 44	Standard and Rimless	0.12 to 8.
Round	42	Standard	0.12 to 8.

## UNCUT PLANO

SHAPE	SIZE	THICKNESS
Meniscus Plano, 1.25 Curve (White)		
Oval	34 x 44	Standard and Rimless
Plano (White, Blue, Smoke)		
Oval	34 x 44	Standard and Rimless
Round	42	Standard and Rimless
Coquille and Mi-coquille (White, Amber, Blue, Smoke)		
Oval	34 x 44	Standard
Oval	40 x 50	Standard
Oval	50 x 60	Standard
Oval	60 x 70	Standard
Auto Plano, Non-optical Glass (White)		
Oval	34 x 44	Standard
Oval	54 x 63	Standard
Oval	61 x 70	Standard

## EDGED SPHERICAL

White

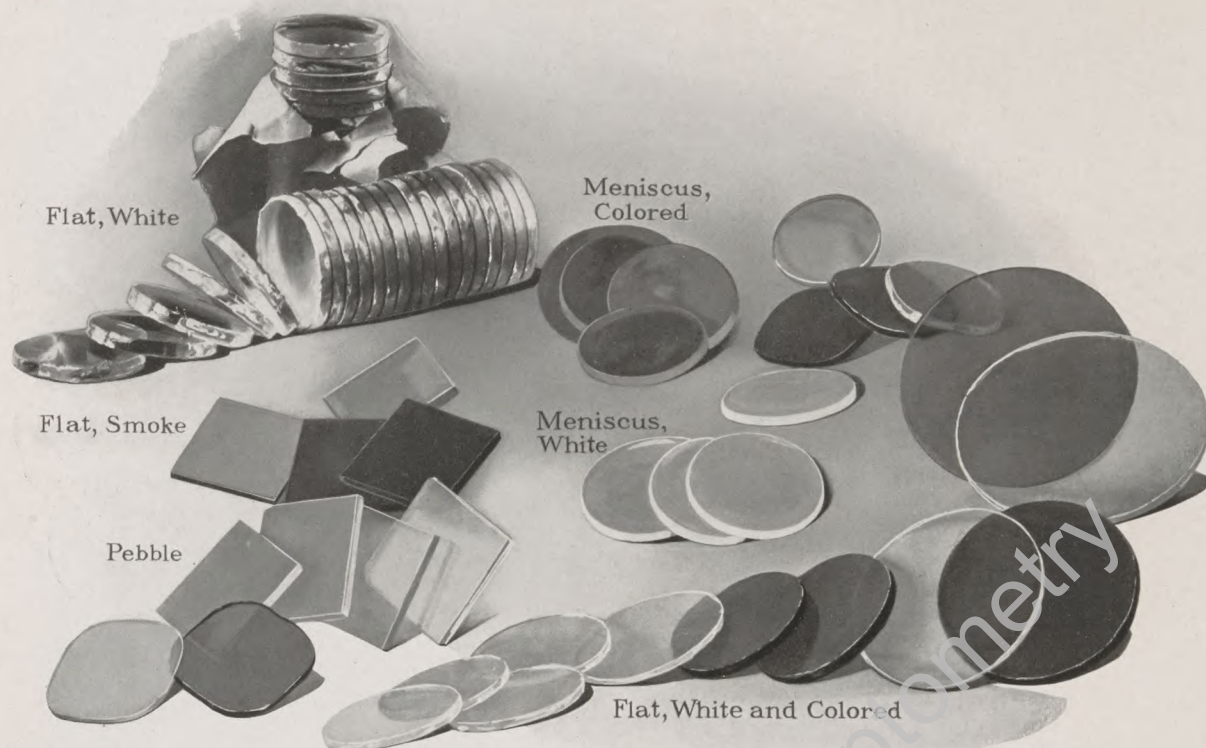
EDGE	STOCK EYE SIZES	STOCK FOCI
Periscopic Convex and Periscopic Concave, 1.25 Curve		
Bevel	1, 0, 00	0.12 to 8.
Rimless	0, 00	0.12 to 8.
Double Convex and Double Concave		
Bevel	1, 0, 00	0.12 to 8.
Rimless	0, 00	0.12 to 8.
Split Bifocals Complete, Convex with Convex Reading Segment		
Bevel	1, 0, 00	0.12 to 8.

## EDGED PLANO

EDGE	STOCK EYE SIZES
Meniscus Plano, 1.25 Curve (White)	
Bevel	1, 0, 00
Rimless	0, 00
Plano (White, Amber, Blue, Smoke)	
Bevel	1, 0, 00
Rimless	0, 00
Coquille and Mi-coquille (White, Amber, Blue, Smoke)	
Bevel	1, 0, 00
Rimless	0, 00

For description of the term "Secons", see page 197.  
 Drilled Rimless Edge "Secons" carried in stock.  
 For Auto Lenses, see page 228.





# AOCO OPTICAL GLASS BLANKS

Rough Both Sides, for Surface Grinding — White, Amber, Blue, Smoke, Amethyst and Euphos

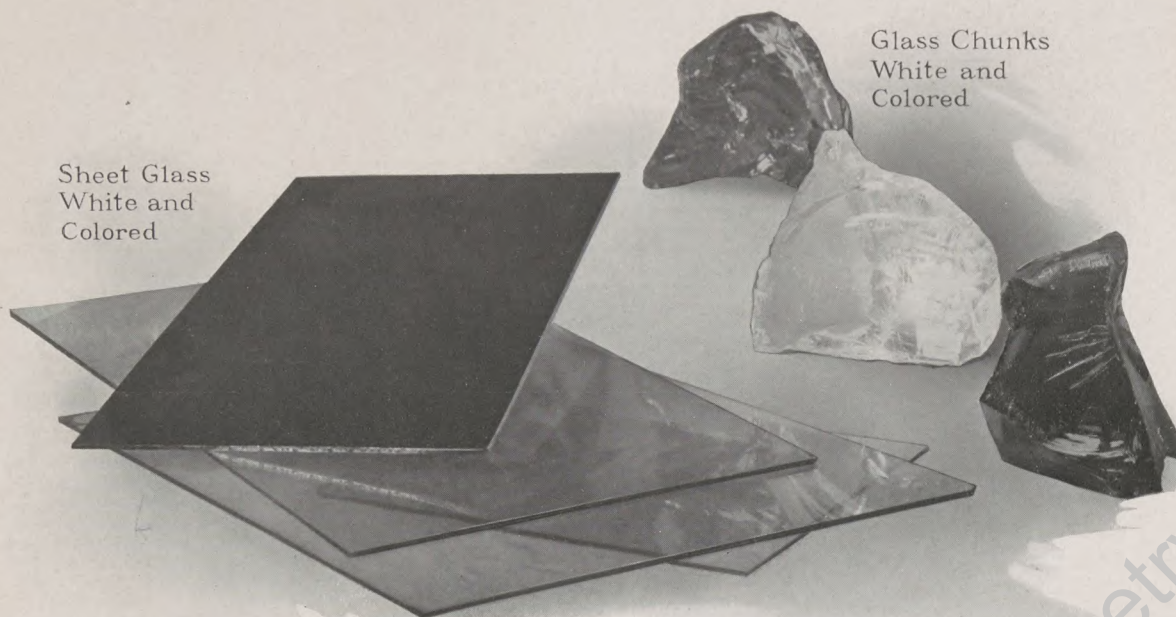
SHAPE	SIZE	THICKNESS — WHITE	THICKNESS — COLORED
Meniscus Blanks			
Round, 6. Curve	47	2 to 10	2 to 10
Round, 6. Curve	51	2 to 7	2 to 7
Round, 6. Curve	63	2 to 7	2 to 7
Round, 6. Curve	71	2 to 7	2 to 7
Round, 6. Curve	80	2 to 7	2 to 7
Round, 9. Curve	47	2 to 10	2 to 7
Flat Blanks			
Oval	34 x 44	2 to 5	2 to 5
Square	42	2 to 10	2 to 7
Round	47	2 to 10	2 to 7
Round	51	2 to 7	2 to 7
Round	63	2 to 7	2 to 7
Round	71	2 to 7	2 to 7
Round	80	2 to 7	2 to 7
Square (Pebble)	42	2 to 4	

For Kryptok Blanks, see page 224.

Base curve of Meniscus Blanks is approximately curve given so that a minimum amount of stock need be removed in surfacing.

All AOCO Lens Blanks are tested for strain under the Colmascope.





## AOCO OPTICAL GLASS IN SHEETS

White and Colors

COLOR	SHADES	SIZE	THICKNESS
White	- - - - -	298 x 214	2 to 12
Amber	D (light) and B (dark)	298 x 214	2 to 6
Blue	o to 7	298 x 214	2 to 6
Smoke	o to 7	298 x 214	2 to 6
Amethyst	Light and Dark	298 x 214	2 to 4
Euphos	Light and Dark	298 x 214	2 to 4

Special sizes cut to order. Glass stock is usually cut in multiples of 42 mm. square.

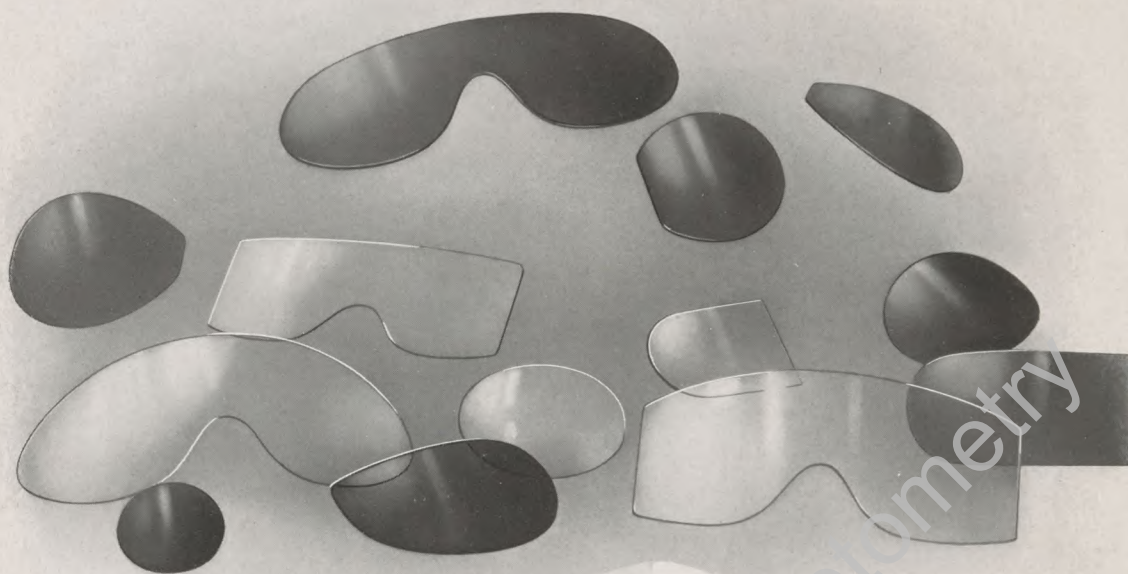
White glass supplied in either 1.507 or 1.523 index.

All sizes and thicknesses given above are in mm.

## AOCO OPTICAL GLASS IN CHUNKS

Catalogue No. M 260. This material is used only for window and show-case display purposes and is supplied white or in colors such as amber, blue, green, etc. It is sold by the pound, chunks varying in weight from one to five pounds. State color and approximate weight wanted in ordering.





### AOCO AUTOMOBILE GOGGLE LENSES

The above illustration graphically shows the wide range of possibilities in the making of lenses for auto goggles, driving and shooting spectacles. In addition to the several sizes and forms required for use in the AOCO goggle line we make all those sizes in general demand for the imported goggles, which include the "whole-front" or single lens types shown above. Our facilities for work of this nature are exceptionally good and the results we achieve are unquestionably superior in quality particularly as to the clarity of stock used and perfection of edge and curves. On the "whole-front" types we make it a point to keep in touch with the latest importations to be able to provide extra lenses exact as to size and curve.

Colors We regularly supply goggle lenses with bevel edge in the following colors: White, amber, blue and smoke. Other colors are: Amethyst, pink, green and euphos, supplied only on special order.

Regular Forms In ordering lenses for AOCO goggles give color, size of eye and catalogue number of goggle, stating whether curved or flat lenses are required.

Special Forms If special shapes not regularly used for AOCO goggles are required it is necessary to send sample lens or goggle. Blue print charts showing actual sizes of regular and special shapes are furnished to wholesalers for convenience in ordering.



All trial sets except the pocket styles are regularly supplied with white celluloid strips, stamped with focus and filled with black, making them clear and indelible.

All of the larger styles of trial sets are made with removable trays, and, unless otherwise ordered, velvet lined trays are supplied. We would call especial attention to our all-wood trays, which are gaining in popularity owing to their cleanliness and durability.

All-wood Tray If an all-wood tray is ordered in connection with an all-wood case the order should be explicit. Thus: No. 2121 oak trial set with all-wood oak tray, or use No. 02121.

All trays, except in traveling style cases, are made skeleton construction, allowing dust to fall on removable pad under the tray, making it very convenient to keep the trial set clean.

All trays in office and dress suit style cases containing contents A, B, C, D, H are interchangeable.

Office Style All office style trial sets are covered with black seal grain leather and have velvet lined removable trays. If all-wood tray is desired order must so state. All cases have nickel-plated locks, catches, quadrant stops and hinges.

Office Style, Hard Wood Our oak cases are made of fully seasoned selected quartered stock, finely finished. All have removable trays velvet lined. If all-wood tray is desired order must so state. Cases are also furnished in mahogany if so ordered.

Automatic Tray Tilting Attachment This provides a means of automatically raising and lowering back of tray when case is opened or closed. This attachment will be furnished at a slight extra charge upon any office style cases except roll and glass front cabinets. See illustration, page 240.

Office Style, Roll and Glass Front Cabinets Our upright cabinets are made of fully seasoned selected quartered oak, finely finished. All have removable trays velvet lined. If all-wood tray is desired order must so state. Trays are arranged to draw forward, making the lenses easily accessible. Cabinets can also be furnished in mahogany if so ordered.

Finish of Oak Cases Oak cases are finished antique color (light) unless otherwise ordered. Other finishes, as golden oak, mission, early English, Flemish, etc., will be furnished when order so specifies.



Tray Making



Neutralizing Trial Set Lenses





Traveling Style Case Making

Traveling, Dress Suit and Folding Style Cases are covered with black seal grain leather with nickel-plated trimmings, including quadrant stop for cover and with removable velvet lined tray with solid bottom. Space is provided underneath tray for stock, also with removable tray for interchangeable lenses, holding one gross pairs. The cover contains a pocket for holding test types. These cases are also furnished in tan leather if so ordered. Cases also furnished with oxidized bronze trimmings instead of nickel-plated if so ordered.

Sizes of Lenses and Trial Rings Trial lenses are made in two sizes and measure exactly 36.3 mm. and 31.5 mm. in diameter. For convenience they are designated as 36 mm. and 32 mm. respectively throughout this catalogue. These sizes are sometimes designated as XX (36.3 mm.) and XXX (31.5 mm.). See page 29, Introductory Section.

Trial rings are 37.6 mm. and 32.8 mm. outside and are designated as 38 mm. and 33 mm. for convenience. The metric system has been adopted with the publication of this edition, the inch system having been discontinued. The diameter of trial rings is denoted by their respective catalogue numbers. The unit figures 0 and 1 indicate the larger rings and unit figures 3 and 4 the smaller rings. It is, therefore, not necessary to state size of rings in ordering trial sets, the above being submitted merely as a matter of information.

We have excellent facilities for filling orders for trial sets on short notice, as a large number of the staple and some special styles are constantly kept in stock.

We are prepared to make any special style of trial set to order. It will be understood that orders for regular styles can be filled more promptly, as a trial set with special assortment of lenses or requiring a specially constructed case must of necessity be made from the beginning. Furthermore, the quantity of lenses or the assortment of foci, if differing even in a single pair from a regular assortment, cannot be changed without extra charge, as special focus strips or a specially constructed case and tray would be required, adding materially to the cost.



## CONTENTS "A." 30 PAIRS SPHERICALS

SPHERES—30 pairs each convex and concave as follows: 0.12, 0.25, 0.50, 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.50, 4.00, 4.50, 5.00, 5.50, 6.00, 6.50, 7.00, 8.00, 9.00, 10.00, 11.00, 12.00, 14.00, 16.00, 18.00, 20.00.

CYLINDERS—18 pairs each convex and concave as follows: 0.25, 0.50, 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.50, 4.00, 4.50, 5.00, 5.50, 6.00.

PRISMS—5½ pairs as follows: 1/24 dozen each 1, 2, 3, 4, 5, 6, 8, 10, 12, 15, 20.

DISKS AND COLORED GLASSES—10 as follows: 1 each blank, pinhole, stenopeic, Maddox rod, white, red, half frosted, blue No. 4, and smoke No. 2 and No. 4 shades.

TRIAL FRAMES—No. 2387 Wells temple and No. 2220. 1 set test types.

## CONTENTS "B." 32 PAIRS SPHERICALS

SPHERES—32 pairs each convex and concave as follows: 0.12, 0.25, 0.37, 0.50, 0.62, 0.75, 0.87, 1.00, 1.12, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.25, 3.50, 4.00, 4.50, 5.00, 5.50, 6.00, 7.00, 8.00, 9.00, 10.00, 11.00, 13.00, 16.00, 20.00.

CYLINDERS—20 pairs each convex and concave as follows: 0.12, 0.25, 0.37, 0.50, 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.25, 3.50, 4.00, 4.50, 5.00, 5.50.

PRISMS—5 pairs as follows: 1/24 dozen each 1, 2, 3, 4, 5, 6, 7, 8, 9, 10.

DISKS AND COLORED GLASSES—10 as follows: 1 each blank, pinhole; 2 stenopeic; and 1 each Maddox rod, white, half frosted, red, blue No. 2, and smoke No. 4.

TRIAL FRAMES—No. 2387 Wells temple and No. 2220. 1 set test types.

## CONTENTS "C." 35 PAIRS SPHERICALS

SPHERES—35 pairs each convex and concave as follows: 0.12, 0.25, 0.37, 0.50, 0.62, 0.75, 0.87, 1.00, 1.12, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.25, 3.50, 4.00, 4.50, 5.00, 5.50, 6.00, 6.50, 7.00, 8.00, 9.00, 10.00, 11.00, 12.00, 14.00, 16.00, 18.00, 20.00.

CYLINDERS—21 pairs each convex and concave as follows: 0.12, 0.25, 0.37, 0.50, 0.62, 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.25, 3.50, 4.00, 4.50, 5.00, 6.00.

PRISMS—7½ pairs as follows: 1/12 dozen each 1, 2, 3, 4; 1/24 dozen each 5, 6, 8, 10, 12, 15, 20.

DISKS AND COLORED GLASSES—14 as follows: 1 blank; 2 each pinhole and stenopeic; 1 each Maddox rod, half frosted, plano white, red, blue shades 2 and 4, smoke shades 2, 4, and 6.

TRIAL FRAMES—No. 2387 Wells temple and No. 2220. 1 set test types.



## CONTENTS "D." 35 PAIRS SPHERICALS

SPHERES—35 pairs each convex and concave as follows: 0.12, 0.25, 0.37, 0.50, 0.62, 0.75, 0.87, 1.00, 1.12, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.25, 3.50, 4.00, 4.50, 5.00, 5.50, 6.00, 6.50, 7.00, 8.00, 9.00, 10.00, 11.00, 12.00, 14.00, 16.00, 18.00, 20.00.

CYLINDERS—21 pairs each convex and concave as follows: 0.12, 0.25, 0.37, 0.50, 0.62, 0.75; 1.00, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.25, 3.50, 4.00, 4.50, 5.00, 6.00.

PRISMS—7½ pairs as follows: 1/12 dozen each 1, 2, 3, 4; 1/24 dozen each 5, 6, 8, 10, 12, 15, 20.

DISKS AND COLORED GLASSES—18 as follows: 1 blank; 2 each pinhole, stenopeic; 1 each Maddox rod, white and red, blue shades 2 and 4, smoke shades 2, 4, and 6, half frosted, Maddox prism, chromatic test and 2 cross-lines.

TRIAL FRAMES—No. 2387 Wells temple and No. 2220. 1 set test types.

## CONTENTS "E." 40 PAIRS SPHERICALS

SPHERES—40 pairs each convex and concave as follows: 0.12, 0.25, 0.37, 0.50, 0.62, 0.75, 0.87, 1.00, 1.12, 1.25, 1.37, 1.50, 1.62, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.25, 3.50, 3.75, 4.00, 4.50, 5.00, 5.50, 6.00, 6.50, 7.00, 7.50, 8.00, 9.00, 10.00, 11.00, 12.00, 13.00, 14.00, 16.00, 18.00, 20.00.

CYLINDERS—24 pairs each convex and concave as follows: 0.12, 0.25, 0.37, 0.50, 0.62, 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.25, 3.50, 4.00, 4.50, 5.00, 5.50, 6.00, 7.00, 8.00.

PRISMS—8½ pairs as follows: 1/12 dozen each 0.50, 1, 2, 3, 4; 1/24 dozen each 5, 6, 8, 10, 12, 15, 20.

DISKS AND COLORED GLASSES—23 as follows: 1 blank; 2 each pinhole, stenopeic, cross-lines; 1 each white, red, blue shades 2, 4, and 6, smoke shades 1, 2, 3, 4, 5, 6, frosted, half frosted, Maddox prism, Maddox rod and chromatic test.

TRIAL FRAMES—No. 2387 B Wells temple and No. 2220. 1 set test types.

## CONTENTS "F." 20 PAIRS SPHERICALS

SPHERES—20 pairs each convex and concave as follows: 1/12 dozen 0.12, 0.25, 0.37, 0.50, 0.75, 1.00, 1.25, 1.50, 2.00, 2.50, 3.00, 3.50, 4.00, 5.00, 6.00; 1/24 dozen 7.00, 8.00, 9.00, 10.00, 11.00, 12.00, 14.00, 16.00, 18.00, 20.00.

CYLINDERS—11 pairs each convex and concave as follows: 1/12 dozen 0.12, 0.25, 0.37, 0.50, 0.75, 1.00, 1.25, 1.50; 1/24 dozen 1.75, 2.00, 2.25, 2.50, 3.00, 4.00.

PRISMS—4½ pairs as follows: 1/12 dozen each 1, 2, 3; 1/24 dozen each 5, 8, 15.

DISKS AND COLORED GLASSES—6 as follows: 1 each blank, pinhole, stenopeic, Maddox rod, white and red.

TRIAL FRAMES—No. 2308 Wells temple and No. 2220.

## CONTENTS "G." 14 PAIRS SPHERICALS

SPHERES—14 pairs each convex and concave as follows: 0.12, 0.25, 0.50, 0.75, 1.00, 1.50, 2.00, 2.50, 3.00, 4.00, 5.00, 6.00, 7.00, 8.00.

CYLINDERS—9 pairs each convex and concave as follows: 0.12, 0.25, 0.50, 0.75, 1.00, 1.50, 2.00, 2.50, 3.00.

DISKS AND COLORED GLASSES—6 as follows: 1 each blank, pinhole, stenopeic, Maddox rod, Maddox prism and red.

TRIAL FRAME—No. 2268 3 cell trial frame.



## CONTENTS "H." 28 PAIRS SPHERICALS

SPHERES—28 pairs each convex and concave as follows: 0.12, 0.25, 0.37, 0.50, 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.50, 4.00, 4.50, 5.00, 5.50, 6.00, 6.50, 7.00, 8.00, 9.00, 10.00, 11.00, 13.00, 16.00.

CYLINDERS—17 pairs each convex and concave as follows: 0.12, 0.25, 0.37, 0.50, 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.50, 4.00, 5.00.

PRISMS—4 pairs as follows: 1/24 dozen each 1, 2, 3, 4, 5, 6, 8, 10.

DISKS AND COLORED GLASSES—9 as follows: 1 each blank, pinhole, stenopeic, white, red, blue, smoke shades 2 and 4, and Maddox rod.

TRIAL FRAMES—No. 2387 Wells temple and No. 2220. 1 set test types.

## CONTENTS "I." 6 PAIRS SPHERICALS

SPHERES—6 pairs each convex and concave as follows: 0.25, 0.50, 0.75, 1.00, 2.00, 3.00.

CYLINDERS—6 pairs each convex and concave as follows: 0.25, 0.50, 0.75, 1.00, 2.00, 3.00.

DISKS AND COLORED GLASSES—5 as follows: 1 each blank, pinhole, stenopeic, Maddox rod and red.

TRIAL FRAME—No. 2268 3 cell trial frame.

## CONTENTS "K." PRISM SET

PRISMS—10 pairs as follows: 1/12 dozen each 0.50, 1.00, 1.50, 2.00, 2.50, 3.00, 3.50, 4.00; 1/24 dozen each 5, 10, 15, 20. Furnished with 38 mm. square prisms or 36 mm. round in 1801 rings as ordered.

## CONTENTS "L." 24 PAIRS SPHERICALS

SPHERES—24 pairs each convex and concave as follows: 0.25, 0.37, 0.50, 0.62, 0.75, 0.87, 1.00, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.25, 3.50, 4.00, 4.50, 5.00, 5.50, 6.00, 7.00, 8.00.

TRIAL FRAME—No. 2220.

## CONTENTS "BB," "LONDON SPECIAL." 32 PAIRS SPHERICALS

SPHERES—32 pairs each convex and concave as follows: 0.25, 0.50, 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.25, 3.50, 3.75, 4.00, 4.50, 5.00, 5.50, 6.00, 6.50, 7.00, 8.00, 9.00, 10.00, 11.00, 12.00, 13.00, 14.00, 16.00, 18.00, 20.00.

CYLINDERS—20 pairs each convex and concave as follows: 0.25, 0.50, 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.25, 3.50, 4.00, 4.50, 5.00, 5.50, 6.00, 7.00.

PRISMS—7½ pairs as follows: 1/12 dozen each 1, 2, 3, 4; 1/24 dozen each 5, 6, 8, 10, 12, 15, 20.

DISKS AND COLORED GLASSES—39 as follows: 1 blank; 2 pinholes; 1 each stenopeic, Maddox prism, multiple red Maddox rod and chromatic test; 2 each cross cylinders and cross lines; 1 each plain white, red, amber and frosted; 6 pairs each blue and smoke, shades, 1, 2, 3, 4, 5, 6.

TRIAL FRAMES—No. 2387 Wells extension temple and No. 2220. 1 set test types, Nos. 3550, 3551, 3552 and 3555.

Any specification or detail, not included in the foregoing, is subject to an extra charge.

Trial sets with any of the following details of special construction, may be had by so specifying upon the order:

Solid wood tray.	Gold-plated minus rings.	Cylinder lenses with Stevenson's axis marking.
Leather covered tray.	Gold-filled rings.	Name printed on ribbon.
Leather covered tray with leather lens partitions.	Black oxidized ring with white focus numbers.	Focus etched on lenses.
Beveled glass top.	Special disks (see page 264).	Tray tilting attachment (see page 240).
Drawer in case.	Cylinder lenses with axis dotted.	Black-focus strips with white marking.
1802 or 1812 style rings.		





Illustrating No. 2060 Trial Set, closed.  
 Illustrating No. 2060 Trial Set, open.  
 Illustrating No. 2021 Trial Set, with drawer.



## OFFICE STYLES, LEATHER COVERED

NUMBER	DESCRIPTION, 30 PAIRS SPHERICALS, 18 PAIRS CYLINDERS, CONTENTS "A." See Page 233
2000	Black seal grain leather covered, velvet lined case, removable tray. Lenses 36 mm. in 1806 Nachet test rings.
2001	Same as No. 2000, except 1801 Alumnico test rings. Lenses, 36 mm.
2003	Same as No. 2000, except 1803 Alumnico test rings. Lenses, 32 mm.
2004	Same as No. 2000, except 1804 Nachet test rings. Lenses, 32 mm.

## DESCRIPTION, 32 PAIRS SPHERICALS, 20 PAIRS CYLINDERS, CONTENTS "B." See Page 233

2010	Black seal grain leather covered, velvet lined case, removable tray. Lenses 36 mm. in 1806 Nachet test rings.
2011	Same as No. 2010, except 1801 Alumnico test rings. Lenses, 36 mm.
2013	Same as No. 2010, except 1803 Alumnico test rings. Lenses, 32 mm.
2014	Same as No. 2010, except 1804 Nachet test rings. Lenses, 32 mm.

## DESCRIPTION, 35 PAIRS SPHERICALS, 21 PAIRS CYLINDERS, CONTENTS "C." See Page 233

2020	Black seal grain leather covered, velvet lined case, removable tray. Lenses 36 mm. in 1806 Nachet test rings.
2021	Same as No. 2020, except 1801 Alumnico test rings. Lenses, 36 mm.
2023	Same as No. 2020, except 1803 Alumnico test rings. Lenses, 32 mm.
2024	Same as No. 2020, except 1804 Nachet test rings. Lenses, 32 mm.

## DESCRIPTION, 35 PAIRS SPHERICALS, 21 PAIRS CYLINDERS, CONTENTS "D." See Page 234

2030	Black seal grain leather covered, velvet lined case, removable tray. Lenses 36 mm. in 1806 Nachet test rings.
2031	Same as No. 2030, except 1801 Alumnico test rings. Lenses, 36 mm.
2033	Same as No. 2030, except 1803 Alumnico test rings. Lenses, 32 mm.
2034	Same as No. 2030, except 1804 Nachet test rings. Lenses, 32 mm.

## DESCRIPTION, 40 PAIRS SPHERICALS, 24 PAIRS CYLINDERS, CONTENTS "E." See Page 234

2040	Black seal grain leather covered, velvet lined case, removable tray. Lenses 36 mm. in 1806 Nachet test rings.
2041	Same as No. 2040, except 1801 Alumnico test rings. Lenses, 36 mm.
2043	Same as No. 2040, except 1803 Alumnico test rings. Lenses, 32 mm.
2044	Same as No. 2040, except 1804 Nachet test rings. Lenses, 32 mm.

## DESCRIPTION, 28 PAIRS SPHERICALS, 17 PAIRS CYLINDERS, CONTENTS "H." See Page 235

2060	Black seal grain leather covered, velvet lined case, removable tray. Lenses 36 mm. in 1806 Nachet test rings.
2061	Same as No. 2060, except 1801 Alumnico test rings. Lenses, 36 mm.
2063	Same as No. 2060, except 1803 Alumnico test rings. Lenses, 32 mm.
2064	Same as No. 2060, except 1804 Nachet test rings. Lenses, 32 mm.

Above cases are same style as No. 2060. See illustration on opposite page.





Illustrating No. 2071 Trial Set, closed.  
 Illustrating No. 2071 Trial Set, open.  
 Illustrating No. 2080 Trial Set, open.



OFFICE STYLES, LEATHER COVERED—*Continued*

NUMBER	DESCRIPTION, 20 PAIRS SPHERICALS, 11 PAIRS CYLINDERS, CONTENTS "F." See Page 234
2070	Black seal grain leather covered, velvet lined case, removable tray. Lenses, 36 mm. in 1806 Nacet test rings.
2071	Same as No. 2070, except 1801 Alumnico test rings. Lenses, 36 mm.
2073	Same as No. 2070, except 1803 Alumnico test rings. Lenses, 32 mm.
2074	Same as No. 2070, except 1804 Nacet test rings. Lenses, 32 mm.
DESCRIPTION, 20 PAIRS SPHERICALS, 11 PAIRS CYLINDERS, CONTENTS "F." See Page 234	
2080	Black seal grain leather covered, velvet lined case, removable tray. Lenses, 36 mm. in 1806 Nacet test rings.
2081	Same as No. 2080, except 1801 Alumnico test rings. Lenses, 36 mm.
2083	Same as No. 2080, except 1803 Alumnico test rings. Lenses, 32 mm.
2084	Same as No. 2080, except 1804 Nacet test rings. Lenses, 32 mm.

No. 2080 style case is uniform in size with office cases designed to hold contents A, B, C, D and H  
See illustration on opposite page.



Office Style Case Making



©



Illustrating No. 2121 Oak, glass top with drawer.

Illustrating No. 02141 Oak, all-wood tray, with automatic tray tilting attachment. See page 231.  
In ordering give complete specifications in addition to catalogue number.



## OFFICE STYLES, HARD WOOD

NUMBER DESCRIPTION, 30 PAIRS SPHERICALS, 18 PAIRS CYLINDERS, CONTENTS "A." See Page 233

- 2100 Polished hard wood (oak or mahogany) case, with velvet lined removable tray. Lenses, 36 mm.  
in 1806 Nachet test rings.
- 2101 Same as No. 2100, except 1801 Alumnico test rings. Lenses, 36 mm.
- 2103 Same as No. 2100, except 1803 Alumnico test rings. Lenses, 32 mm.
- 2104 Same as No. 2100, except 1804 Nachet test rings. Lenses, 32 mm.

DESCRIPTION, 32 PAIRS SPHERICALS, 20 PAIRS CYLINDERS, CONTENTS "B." See Page 233

- 2110 Polished hard wood (oak or mahogany) case, with velvet lined removable tray. Lenses, 36 mm.  
in 1806 Nachet test rings.
- 2111 Same as No. 2110, except 1801 Alumnico test rings. Lenses, 36 mm.
- 2113 Same as No. 2110, except 1803 Alumnico test rings. Lenses, 32 mm.
- 2114 Same as No. 2110, except 1804 Nachet test rings. Lenses, 32 mm.

DESCRIPTION, 35 PAIRS SPHERICALS, 21 PAIRS CYLINDERS, CONTENTS "C." See Page 233

- 2120 Polished hard wood (oak or mahogany) case, with velvet lined removable tray. Lenses, 36 mm.  
in 1806 Nachet test rings.
- 2121 Same as No. 2120, except 1801 Alumnico test rings. Lenses, 36 mm.
- 2123 Same as No. 2120, except 1803 Alumnico test rings. Lenses, 32 mm.
- 2124 Same as No. 2120, except 1804 Nachet test rings. Lenses, 32 mm.

DESCRIPTION, 35 PAIRS SPHERICALS, 21 PAIRS CYLINDERS, CONTENTS "D." See Page 234

- 2130 Polished hard wood (oak or mahogany) case, with velvet lined removable tray. Lenses, 36 mm.  
in 1806 Nachet test rings.
- 2131 Same as No. 2130, except 1801 Alumnico test rings. Lenses, 36 mm.
- 2133 Same as No. 2130, except 1803 Alumnico test rings. Lenses, 32 mm.
- 2134 Same as No. 2130, except 1804 Nachet test rings. Lenses, 32 mm.

DESCRIPTION, 40 PAIRS SPHERICALS, 24 PAIRS CYLINDERS, CONTENTS "E." See Page 234

- 2140 Polished hard wood (oak or mahogany) case, with velvet lined removable tray. Lenses, 36 mm.  
in 1806 Nachet test rings.
- 2141 Same as No. 2140, except 1801 Alumnico test rings. Lenses, 36 mm.
- 2143 Same as No. 2140, except 1803 Alumnico test rings. Lenses, 32 mm.
- 2144 Same as No. 2140, except 1804 Nachet test rings. Lenses, 32 mm.

DESCRIPTION, 28 PAIRS SPHERICALS, 17 PAIRS CYLINDERS, CONTENTS "H." See Page 235

- 2160 Polished hard wood (oak or mahogany) case, with velvet lined removable tray. Lenses, 36 mm.  
in 1806 Nachet test rings.
- 2161 Same as No. 2160, except 1801 Alumnico test rings. Lenses, 36 mm.
- 2163 Same as No. 2160, except 1803 Alumnico test rings. Lenses, 32 mm.
- 2164 Same as No. 2160, except 1804 Nachet test rings. Lenses, 32 mm.

Above cases are same style as No. 02141, shown on opposite page. (All-wood tray, automatic tray tilting attachment, drawer in case or glass top, extra.)





Illustrating No. 2511 Mahogany roll top; closed.

Illustrating No. 02511 Oak roll top; open, with all-wood tray.



## ROLL FRONT CABINET

---

NUMBER DESCRIPTION, 30 PAIRS SPHERICALS, 18 PAIRS CYLINDERS, CONTENTS "A." See Page 233

---

- 2500 Polished hard wood (oak or mahogany) cabinet, with roll front and two drawers, velvet lined removable tray. Lenses, 36 mm. in 1806 Nachet test rings.
- 2501 Same as No. 2500, except 1801 Alumnico test rings. Lenses, 36 mm.
- 2503 Same as No. 2500, except 1803 Alumnico test rings. Lenses, 32 mm.
- 2504 Same as No. 2500, except 1804 Nachet test rings. Lenses, 32 mm.
- 

DESCRIPTION, 32 PAIRS SPHERICALS, 20 PAIRS CYLINDERS, CONTENTS "B." See Page 233

---

- 2510 Polished hard wood (oak or mahogany) cabinet, with roll front and two drawers, velvet lined removable tray. Lenses, 36 mm. in 1806 Nachet test rings.
- 2511 Same as No. 2510, except 1801 Alumnico test rings. Lenses, 36 mm.
- 2513 Same as No. 2510, except 1803 Alumnico test rings. Lenses, 32 mm.
- 2514 Same as No. 2510, except 1804 Nachet test rings. Lenses, 32 mm.
- 

DESCRIPTION, 35 PAIRS SPHERICALS, 21 PAIRS CYLINDERS, CONTENTS "C." See Page 233

---

- 2520 Polished hard wood (oak or mahogany) cabinet, with roll front and two drawers, velvet lined removable tray. Lenses, 36 mm. in 1806 Nachet test rings.
- 2521 Same as No. 2520, except 1801 Alumnico test rings. Lenses, 36 mm.
- 2523 Same as No. 2520, except 1803 Alumnico test rings. Lenses, 32 mm.
- 2524 Same as No. 2520, except 1804 Nachet test rings. Lenses, 32 mm.
- 

DESCRIPTION, 35 PAIRS SPHERICALS, 21 PAIRS CYLINDERS, CONTENTS "D." See Page 234

---

- 2530 Polished hard wood (oak or mahogany) cabinet, with roll front and two drawers, velvet lined removable tray. Lenses, 36 mm. in 1806 Nachet test rings.
- 2531 Same as No. 2530, except 1801 Alumnico test rings. Lenses, 36 mm.
- 2533 Same as No. 2530, except 1803 Alumnico test rings. Lenses, 32 mm.
- 2534 Same as No. 2530, except 1804 Nachet test rings. Lenses, 32 mm.
- 

DESCRIPTION, 40 PAIRS SPHERICALS, 24 PAIRS CYLINDERS, CONTENTS "E." See Page 234

---

- 2540 Polished hard wood (oak or mahogany) cabinet, with roll front and two drawers, velvet lined removable tray. Lenses, 36 mm. in 1806 Nachet test rings.
- 2541 Same as No. 2540, except 1801 Alumnico test rings. Lenses, 36 mm.
- 2543 Same as No. 2540, except 1803 Alumnico test rings. Lenses, 32 mm.
- 2544 Same as No. 2540, except 1804 Nachet test rings. Lenses, 32 mm.
- 

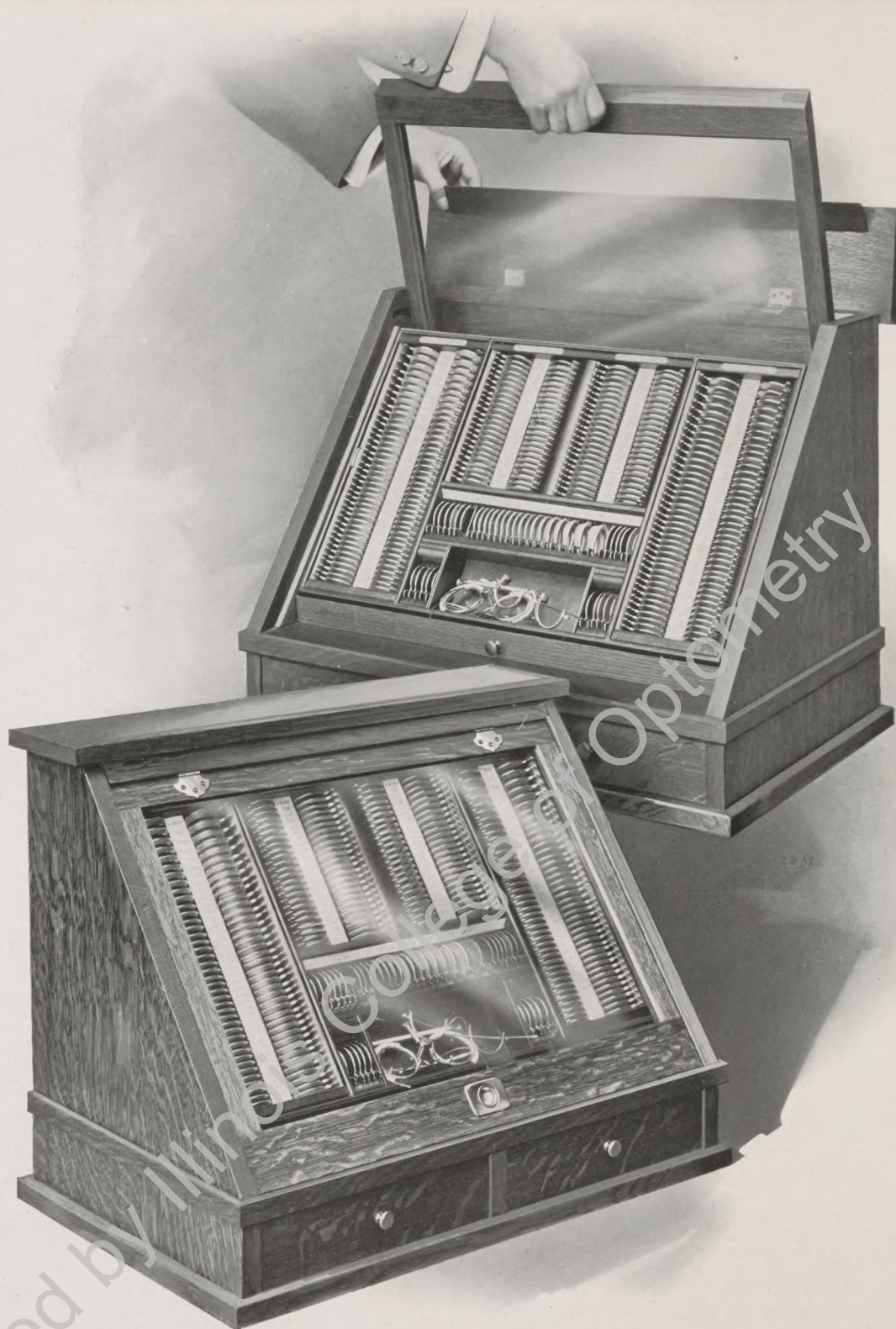
DESCRIPTION, 28 PAIRS SPHERICALS, 17 PAIRS CYLINDERS, CONTENTS "H." See Page 235

---

- 2560 Polished hard wood (oak or mahogany) cabinet, with roll front and two drawers, velvet lined removable tray. Lenses, 36 mm. in 1806 Nachet test rings.
- 2561 Same as No. 2560, except 1801 Alumnico test rings. Lenses, 36 mm.
- 2563 Same as No. 2560, except 1803 Alumnico test rings. Lenses, 32 mm.
- 2564 Same as No. 2560, except 1804 Nachet test rings. Lenses, 32 mm.
- 

Above cases are same style as No. 2511. See illustration on opposite page.





Illustrating No. 2241 Oak, glass front, with method of disposing of glass front.  
Illustrating No. 2241 Oak, glass front; closed.



## GLASS FRONT CABINET

NUMBER DESCRIPTION, 30 PAIRS SPHERICALS, 18 PAIRS CYLINDERS, CONTENTS "A." See Page 233

- 2200 Polished hard wood (oak or mahogany) cabinet, with glass front and two drawers, velvet lined removable tray. Lenses, 36 mm. in 1806 Nachet test rings.  
 2201 Same as No. 2200, except 1801 Alumnico test rings. Lenses, 36 mm.  
 2203 Same as No. 2200, except 1803 Alumnico test rings. Lenses, 32 mm.  
 2204 Same as No. 2200, except 1804 Nachet test rings. Lenses, 32 mm.

DESCRIPTION, 32 PAIRS SPHERICALS, 20 PAIRS CYLINDERS, CONTENTS "B." See Page 233

- 2210 Polished hard wood (oak or mahogany) cabinet, with glass front and two drawers, velvet lined removable tray. Lenses, 36 mm. in 1806 Nachet test rings.  
 2211 Same as No. 2210, except 1801 Alumnico test rings. Lenses, 36 mm.  
 2213 Same as No. 2210, except 1803 Alumnico test rings. Lenses, 32 mm.  
 2214 Same as No. 2210, except 1804 Nachet test rings. Lenses, 32 mm.

DESCRIPTION, 35 PAIRS SPHERICALS, 21 PAIRS CYLINDERS, CONTENTS "C." See Page 233

- 2220 Polished hard wood (oak or mahogany) cabinet, with glass front and two drawers, velvet lined removable tray. Lenses, 36 mm. in 1806 Nachet test rings.  
 2221 Same as No. 2220, except 1801 Alumnico test rings. Lenses, 36 mm.  
 2223 Same as No. 2220, except 1803 Alumnico test rings. Lenses, 32 mm.  
 2224 Same as No. 2220, except 1804 Nachet test rings. Lenses, 32 mm.

DESCRIPTION, 35 PAIRS SPHERICALS, 21 PAIRS CYLINDERS, CONTENTS "D." See Page 234

- 2230 Polished hard wood (oak or mahogany) cabinet, with glass front and two drawers, velvet lined removable tray. Lenses, 36 mm. in 1806 Nachet test rings.  
 2231 Same as No. 2230, except 1801 Alumnico test rings. Lenses, 36 mm.  
 2233 Same as No. 2230, except 1803 Alumnico test rings. Lenses, 32 mm.  
 2234 Same as No. 2230, except 1804 Nachet test rings. Lenses, 32 mm.

DESCRIPTION, 40 PAIRS SPHERICALS, 24 PAIRS CYLINDERS, CONTENTS "E." See Page 234

- 2240 Polished hard wood (oak or mahogany) cabinet, with glass front and two drawers, velvet lined removable tray. Lenses, 36 mm. in 1806 Nachet test rings.  
 2241 Same as No. 2240, except 1801 Alumnico test rings. Lenses, 36 mm.  
 2243 Same as No. 2240, except 1803 Alumnico test rings. Lenses, 32 mm.  
 2244 Same as No. 2240, except 1804 Nachet test rings. Lenses, 32 mm.

DESCRIPTION, 28 PAIRS SPHERICALS, 17 PAIRS CYLINDERS, CONTENTS "H." See Page 235

- 2260 Polished hard wood (oak or mahogany) cabinet, with glass front and two drawers, velvet lined removable tray. Lenses, 36 mm. in 1806 Nachet test rings.  
 2261 Same as No. 2260, except 1801 Alumnico test rings. Lenses, 36 mm.  
 2263 Same as No. 2260, except 1803 Alumnico test rings. Lenses, 32 mm.  
 2264 Same as No. 2260, except 1804 Nachet test rings. Lenses, 32 mm.

Above cases are same style as No. 2241. See illustration on opposite page.





Illustrating No. 2631 Tan and Seal D. S.; open and closed.  
Illustrating No. 2671 Tan and Seal D. S.; open and closed.



## DRESS SUIT STYLE

---

NUMBER DESCRIPTION, 30 PAIRS SPHERICALS, 18 PAIRS CYLINDERS, CONTENTS "A." See Page 233

---

- 2600 Black seal grain leather covered, velvet lined dress suit case, with removable tray and space for stock. Lenses, 36 mm. in 1806 Nachet test rings.
- 2601 Same as No. 2600, except 1801 Alumnico test rings. Lenses, 36 mm.
- 2603 Same as No. 2600, except 1803 Alumnico test rings. Lenses, 32 mm.
- 2604 Same as No. 2600, except 1804 Nachet test rings. Lenses, 32 mm.  
Same style case as No. 2671.
- 

DESCRIPTION, 32 PAIRS SPHERICALS, 20 PAIRS CYLINDERS, CONTENTS "B." See Page 233

---

- 2610 Black seal grain leather covered, velvet lined dress suit case, with removable tray and space for stock. Lenses, 36 mm. in 1806 Nachet test rings.
- 2611 Same as No. 2610, except 1801 Alumnico test rings. Lenses, 36 mm.
- 2613 Same as No. 2610, except 1803 Alumnico test rings. Lenses, 32 mm.
- 2614 Same as No. 2610, except 1804 Nachet test rings. Lenses, 32 mm.  
Same style case as No. 2671.
- 

DESCRIPTION, 35 PAIRS SPHERICALS, 21 PAIRS CYLINDERS, CONTENTS "C." See Page 233

---

- 2620 Black seal grain leather covered, velvet lined dress suit case, with removable tray and space for stock. Lenses, 36 mm. in 1806 Nachet test rings.
- 2621 Same as No. 2620, except 1801 Alumnico test rings. Lenses, 36 mm.
- 2623 Same as No. 2620, except 1803 Alumnico test rings. Lenses, 32 mm.
- 2624 Same as No. 2620, except 1804 Nachet test rings. Lenses, 32 mm.  
Same style case as No. 2671.
- 

DESCRIPTION, 35 PAIRS SPHERICALS, 21 PAIRS CYLINDERS, CONTENTS "D." See Page 234

---

- 2630 Black seal grain leather covered, velvet lined dress suit case, with removable tray and space for stock. Lenses, 36 mm. in 1806 Nachet test rings.
- 2631 Same as No. 2630, except 1801 Alumnico test rings. Lenses, 36 mm.
- 2633 Same as No. 2630, except 1803 Alumnico test rings. Lenses, 32 mm.
- 2634 Same as No. 2630, except 1804 Nachet test rings. Lenses, 32 mm.
- 

DESCRIPTION, 40 PAIRS SPHERICALS, 24 PAIRS CYLINDERS, CONTENTS "E." See Page 234

---

- 2640 Black seal grain leather covered, velvet lined dress suit case, with removable tray and space for stock. Lenses, 36 mm. in 1806 Nachet test rings.
- 2641 Same as No. 2640, except 1801 Alumnico test rings. Lenses, 36 mm.
- 2643 Same as No. 2640, except 1803 Alumnico test rings. Lenses, 32 mm.
- 2644 Same as No. 2640, except 1804 Nachet test rings. Lenses, 32 mm.  
Same style case as No. 2671.
- 

DESCRIPTION, 28 PAIRS SPHERICALS, 17 PAIRS CYLINDERS, CONTENTS "H." See Page 235

---

- 2660 Black seal grain leather covered, velvet lined dress suit case, with removable tray and space for stock. Lenses, 36 mm. in 1806 Nachet test rings.
- 2661 Same as No. 2660, except 1801 Alumnico test rings. Lenses, 36 mm.
- 2663 Same as No. 2660, except 1803 Alumnico test rings. Lenses, 32 mm.
- 2664 Same as No. 2660, except 1804 Nachet test rings. Lenses, 32 mm.  
Same style case as No. 2671.
- 

Above cases are same style as shown on opposite page.  
Tan leather dress suit case furnished when so ordered.





Illustrating No. 2721 Folding; closed and open.



DRESS SUIT STYLE—*Continued*

NUMBER	DESCRIPTION, 20 PAIRS SPHERICALS, 11 PAIRS CYLINDERS, CONTENTS "F." See Page 234
2670	Black seal grain leather covered, velvet lined case, dress suit style, removable tray with space for stock. Lenses, 36 mm. in 1806 Nachet test rings.
2671	Same as No. 2670, except 1801 Alumnico test rings. Lenses, 36 mm.
2673	Same as No. 2670, except 1803 Alumnico test rings. Lenses, 32 mm.
2674	Same as No. 2670, except 1804 Nachet test rings. Lenses, 32 mm. Same style case as No. 2671.

See illustration on page 246.

## FOLDING STYLE

NUMBER	DESCRIPTION, 30 PAIRS SPHERICALS, 18 PAIRS CYLINDERS, CONTENTS "A." See Page 233
2700	Black seal grain leather covered, velvet lined, folding style case, with two removable trays and space for stock. Lenses, 36 mm. in 1806 Nachet test rings.
2701	Same as No. 2700, except 1801 Alumnico test rings. Lenses, 36 mm.
2703	Same as No. 2700, except 1803 Alumnico test rings. Lenses, 32 mm.
2704	Same as No. 2700, except 1804 Nachet test rings. Lenses, 32 mm.

DESCRIPTION, 32 PAIRS SPHERICALS, 20 PAIRS CYLINDERS, CONTENTS "B." See Page 233

2710	Black seal grain leather covered, velvet lined, folding style case, with two removable trays and space for stock. Lenses, 36 mm. in 1806 Nachet test rings.
2711	Same as No. 2710, except 1801 Alumnico test rings. Lenses, 36 mm.
2713	Same as No. 2710, except 1803 Alumnico test rings. Lenses, 32 mm.
2714	Same as No. 2710, except 1804 Nachet test rings. Lenses, 32 mm.

DESCRIPTION, 35 PAIRS SPHERICALS, 21 PAIRS CYLINDERS, CONTENTS "C." See Page 233

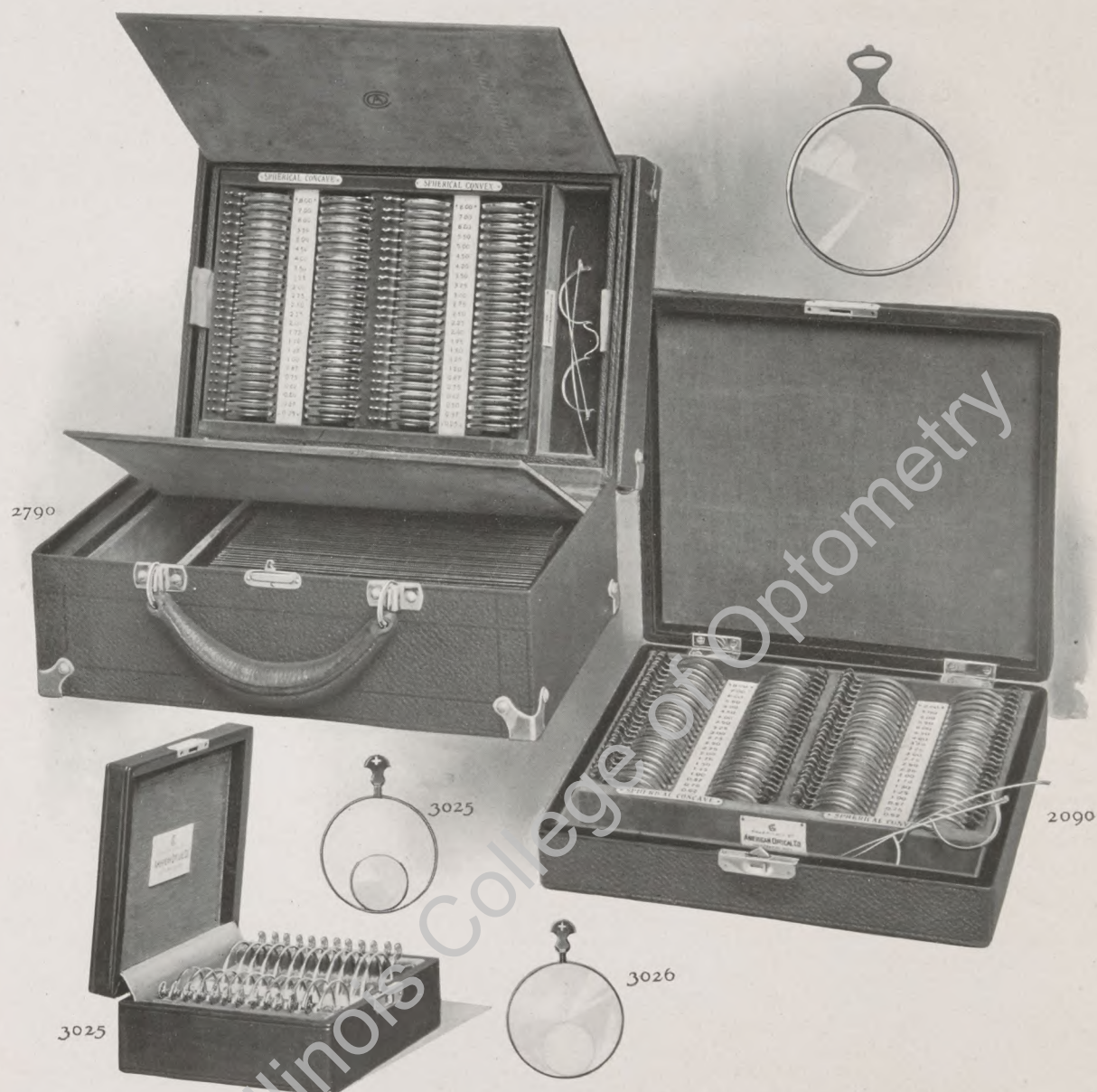
2720	Black seal grain leather covered, velvet lined, folding style case, with two removable trays and space for stock. Lenses, 36 mm. in 1806 Nachet test rings.
2721	Same as No. 2720, except 1801 Alumnico test rings. Lenses, 36 mm.
2723	Same as No. 2720, except 1803 Alumnico test rings. Lenses, 32 mm.
2724	Same as No. 2720, except 1804 Nachet test rings. Lenses, 32 mm.

DESCRIPTION, 35 PAIRS SPHERICALS, 21 PAIRS CYLINDERS, CONTENTS "D." See Page 234

2730	Black seal grain leather covered, velvet lined, folding style case, with two removable trays and space for stock. Lenses, 36 mm. in 1806 Nachet test rings.
2731	Same as No. 2730, except 1801 Alumnico test rings. Lenses, 36 mm.
2733	Same as No. 2730, except 1803 Alumnico test rings. Lenses, 32 mm.
2734	Same as No. 2730, except 1804 Nachet test rings. Lenses, 32 mm.

See illustration on opposite page.





Illustrating No. 2090 Spherical; open.  
 Illustrating No. 2790 Spherical; open.  
 Illustrating No. 3025 Bifocal; open. No. 3025 lens. Patented.  
 Illustrating No. 3026 Cement Bifocal lens.



FOLDING STYLE—*Continued*

NUMBER	DESCRIPTION, 40 PAIRS SPHERICALS, 24 PAIRS CYLINDERS, CONTENTS "E." See Page 234
2740	Black seal grain leather covered, velvet lined, folding style case, with two removable trays and space for stock. Lenses, 36 mm. in 1806 Nachet test rings.
2741	Same as No. 2740, except 1801 Alumnico test rings. Lenses, 36 mm.
2743	Same as No. 2740, except 1803 Alumnico test rings. Lenses, 32 mm.
2744	Same as No. 2740, except 1804 Nachet test rings. Lenses, 32 mm.

## DESCRIPTION, 28 PAIRS SPHERICALS, 17 PAIRS CYLINDERS, CONTENTS "H." See Page 235

2760	Black seal grain leather covered, velvet lined, folding style case, with two removable trays and space for stock. Lenses, 36 mm. in 1806 Nachet test rings.
2761	Same as No. 2760, except 1801 Alumnico test rings. Lenses, 36 mm.
2763	Same as No. 2760, except 1803 Alumnico test rings. Lenses, 32 mm.
2764	Same as No. 2760, except 1804 Nachet test rings. Lenses, 32 mm.

## DESCRIPTION, 20 PAIRS SPHERICALS, 11 PAIRS CYLINDERS, CONTENTS "F." See Page 234

2770	Black seal grain leather covered, velvet lined, folding style case, with two removable trays and space for stock. Lenses, 36 mm. in 1806 Nachet test rings.
2771	Same as No. 2770, except 1801 Alumnico test rings. Lenses, 36 mm.
2773	Same as No. 2770, except 1803 Alumnico test rings. Lenses, 32 mm.
2774	Same as No. 2770, except 1804 Nachet test rings. Lenses, 32 mm.

Above cases are same style as No. 2721. See illustration on page 248.

## SPHERICAL SETS

NUMBER	DESCRIPTION, OFFICE STYLE, 24 PAIRS SPHERICALS, CONTENTS "L." See Page 235
2090	Black seal grain leather covered, velvet lined case, as illustrated. Lenses in 1806 Nachet test rings. Lenses, 36 mm.
2094	Same as No. 2090, except 1804 Nachet test rings. Lenses, 32 mm.

## DESCRIPTION, FOLDING STYLE, 24 PAIRS SPHERICALS, CONTENTS "L." See Page 235

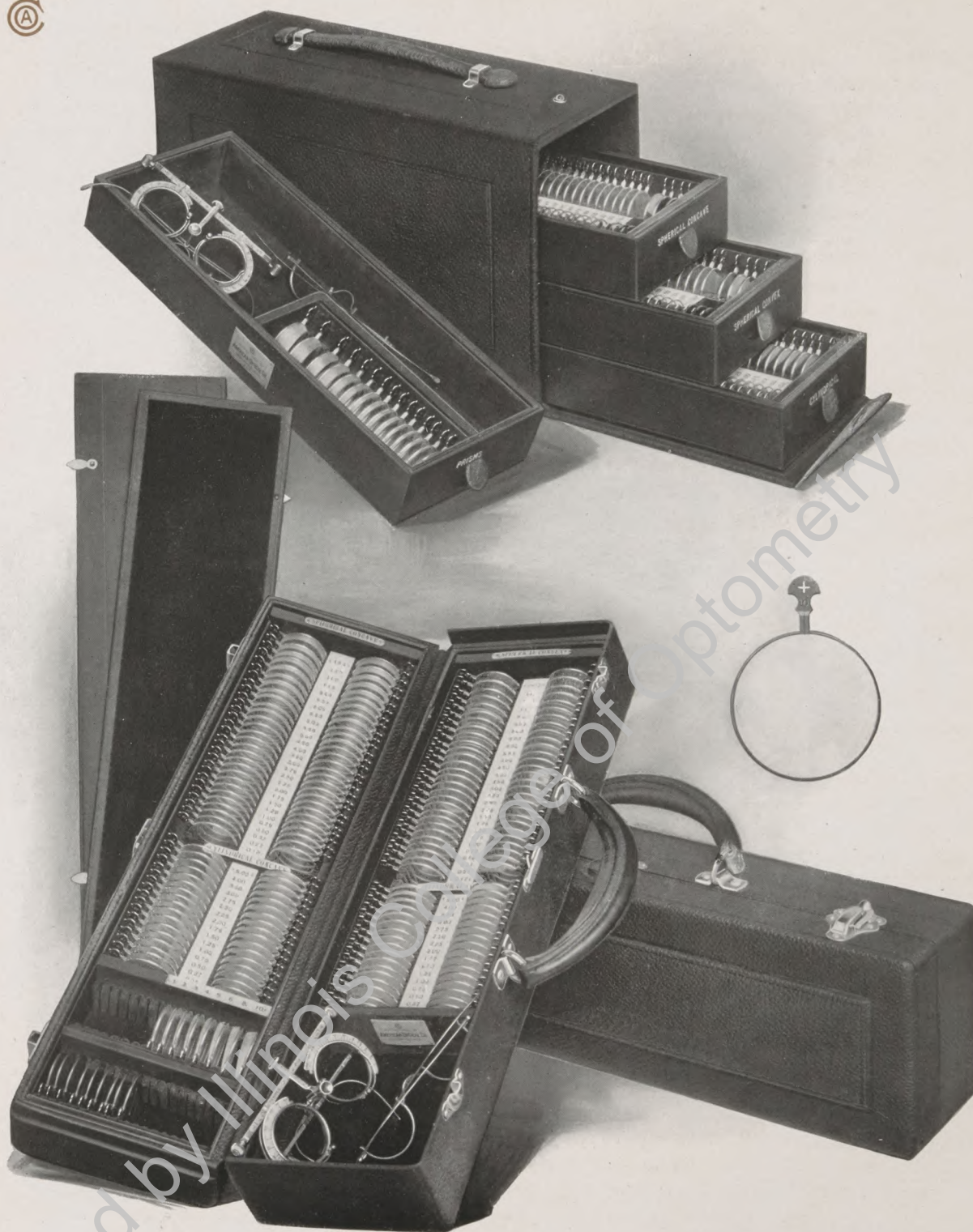
2790	Black seal grain leather covered, folding style case, velvet lined, with removable trays and space for stock. Lenses in 1806 Nachet test rings. Lenses, 36 mm.
2794	Same as No. 2790, except 1804 Nachet test rings. Lenses, 32 mm.

## BIFOCAL SETS

NUMBER	DESCRIPTION, 12 PAIRS SPHERICALS + .50 D. TO + 3.25 D.
3025	Black seal grain leather covered case, as illustrated. Beveled edge bifocal segments, 18 mm. round, in rims set in 1801 rings, 38 mm. Patented.
3026	Same as No. 3025, except cement segments on plano uppers. Segments, 18 mm. round; 1801 rings, 38 mm.
	Contents of No. 3025 or 3026 may be supplied with contents, "A," "B," "C," "D," "E" and "H," in office style or travelling cases when so ordered. See pages 233, 234 and 235.
	Nos. 3025 and 3026 Bifocal sets also furnished with 18 mm. segments, in rims set in 1803 rings, 33 mm. when so ordered.

See illustration on opposite page.





Illustrating No. 2821 Physicians' Trial Set.

Illustrating No. 2961 Quaker City Trial Set; open and closed.



## PHYSICIANS' STYLE

NUMBER	DESCRIPTION, 35 PAIRS SPHERICALS, 21 PAIRS CYLINDERS, CONTENTS "C." See Page 233
2821	Black seal grain leather covered case, physicians' style, as illustrated, with four velvet lined removable trays. Lenses in 1801 Alumnico test rings. Lenses, 36 mm.
2823	Same as No. 2821, except 1803 Alumnico test rings. Lenses, 32 mm.

DESCRIPTION, 20 PAIRS SPHERICALS, 11 PAIRS CYLINDERS, CONTENTS "F." See Page 234

2871	Black seal grain leather covered case, physicians' style, with three velvet lined removable trays. Lenses in 1801 Alumnico test rings. Lenses, 36 mm.
2873	Same as No. 2871, except 1803 Alumnico test rings. Lenses, 32 mm. Same style case as No. 2821.

See illustration on opposite page.

## QUAKER CITY FOLDING STYLE

NUMBER	DESCRIPTION, 28 PAIRS SPHERICALS, 17 PAIRS CYLINDERS, CONTENTS "H." See Page 235
2961	Black seal grain leather covered case, Quaker City folding style, as illustrated, velvet lined, without removable trays. Lenses, 36 mm. in 1801 Alumnico test rings.
2963	Same as No. 2961, except 1803 Alumnico test rings. Lenses, 32 mm.

DESCRIPTION, 20 PAIRS SPHERICALS, 11 PAIRS CYLINDERS, CONTENTS "F." See Page 234

2971	Black seal grain leather covered case, Quaker City folding style, as illustrated, velvet lined, without removable trays. Lenses, 36 mm. in 1801 Alumnico test rings.
2973	Same as No. 2971, except 1803 Alumnico test rings. Lenses, 32 mm. Same style case as No. 2961.

See illustration on opposite page.







Illustrating No. 2009-1 Trial Set, open.

Illustrating No. 2109-1 Trial Set, with London Base, closed.

Illustrating No. 2109-1, Trial Set, with Beveled Glass Top, Drawer, Extension Top and London Base, closed.





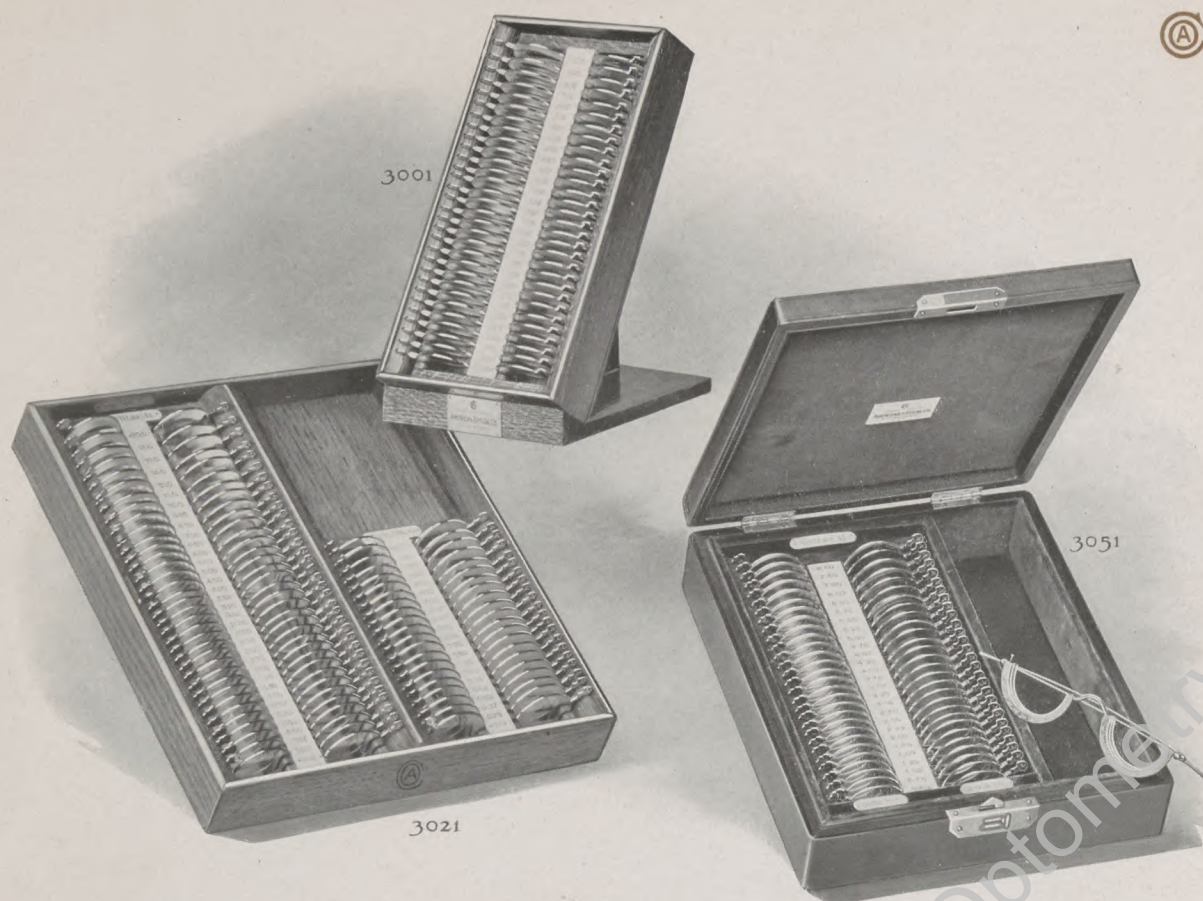




# POCKET SETS

NUMBER	DESCRIPTION, POCKET SENIOR, 14 PAIR SPHERICALS, 9 PAIRS CYLINDERS, CONTENTS "G." See Page 234
2096	Black seal grain leather covered, velvet lined case, as illustrated. Lenses, 36 mm. in 1801 Alumnico test rings.
2095	Same as No. 2096, except 1803 Alumnico test rings. Lenses, 32 mm. No. 3008 prism bar furnished with above sets when so ordered.
DESCRIPTION, POCKET JUNIOR, 6 PAIRS SPHERICALS, 6 PAIRS CYLINDERS, CONTENTS "I." See Page 235	
2091	Black seal grain leather case, with leather lining and pockets. Focus numbers stamped in gold. Style of illustration with trial frame in same case. Lenses, 36 mm. in 1801 Alumnico test rings.
2093	Same as No. 2091, except 1803 Alumnico test rings. Lenses, 32 mm.
DESCRIPTION, PRISM SET, CONTENTS "K." See Page 235	
2098	Black seal grain leather covered, velvet lined case. Furnished with 36 mm. round prisms in 1801 rings.
2099	Same as No. 2098 except square prisms.
3007	Three power confirmation test. Set of two combinations $+ .25$ D. $+ .50$ D. $+ .75$ D. sphericals; $- .25$ D. $- .50$ D. $- .75$ D. sphericals. Lenses, 36 mm.
3008	Prism bar. Nickered frame. Powers: $.50\Delta$ , $1\Delta$ , $1.50\Delta$ , $2\Delta$ , $2.50\Delta$ , $3\Delta$ , $4\Delta$ , $5\Delta$ , $6\Delta$ , $8\Delta$ . Base toward handle or side as ordered. Latter arrangement if not otherwise specified.





## NEUTRALIZING AND RETINOSCOPIC SETS

NUMBER	DESCRIPTION
3001	Neutralizing set in oak tray on bracket. CONTENTS: 30 powers each convex and concave sphericals to 10.00 D. Lenses, 36 mm. in 1801 trial rings, as follows: 0.12, 0.25, 0.37, 0.50, 0.62, 0.75, 0.87, 1.00, 1.12, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.25, 3.50, 3.75, 4.00, 4.50, 5.00, 5.50, 6.00, 6.50, 7.00, 8.00, 9.00, 10.00.
3021	Neutralizing set in oak tray. CONTENTS: 35 powers each convex and concave sphericals, 21 powers each convex and concave cylinders. Same numbers as sphericals in contents "C," page 233. Lenses, 36 mm. in 1801 trial rings.
3041	Neutralizing set in oak tray same as No. 3021 except contents. CONTENTS: 40 powers each convex and concave sphericals, 24 powers each convex and concave cylinders. Same numbers as in contents "E," page 234. Lenses, 36 mm. in 1801 trial rings.
3051	Retinoscopic set in leather covered, velvet lined case. CONTENTS: 28 powers each convex and concave sphericals to 8.00 D. No. 2260, double cell trial frame. Lenses, 36 mm. in No. 1801 trial rings, as follows: 0.25, 0.50, 0.75, 1.00, 1.25, 1.50, 1.75, 2.00, 2.25, 2.50, 2.75, 3.00, 3.25, 3.50, 3.75, 4.00, 4.25, 4.50, 4.75, 5.00, 5.25, 5.50, 5.75, 6.00, 6.50, 7.00, 7.50, 8.00.
3061	Neutralizing set in oak tray, same as 3001 except without bracket. Lenses are frosted except 13 mm. opening in center. CONTENTS: 30 powers each convex and concave sphericals to 8.00 D. Lenses in 1801 trial rings, same numbers as contents "E" to 8.00 D. See page 234.





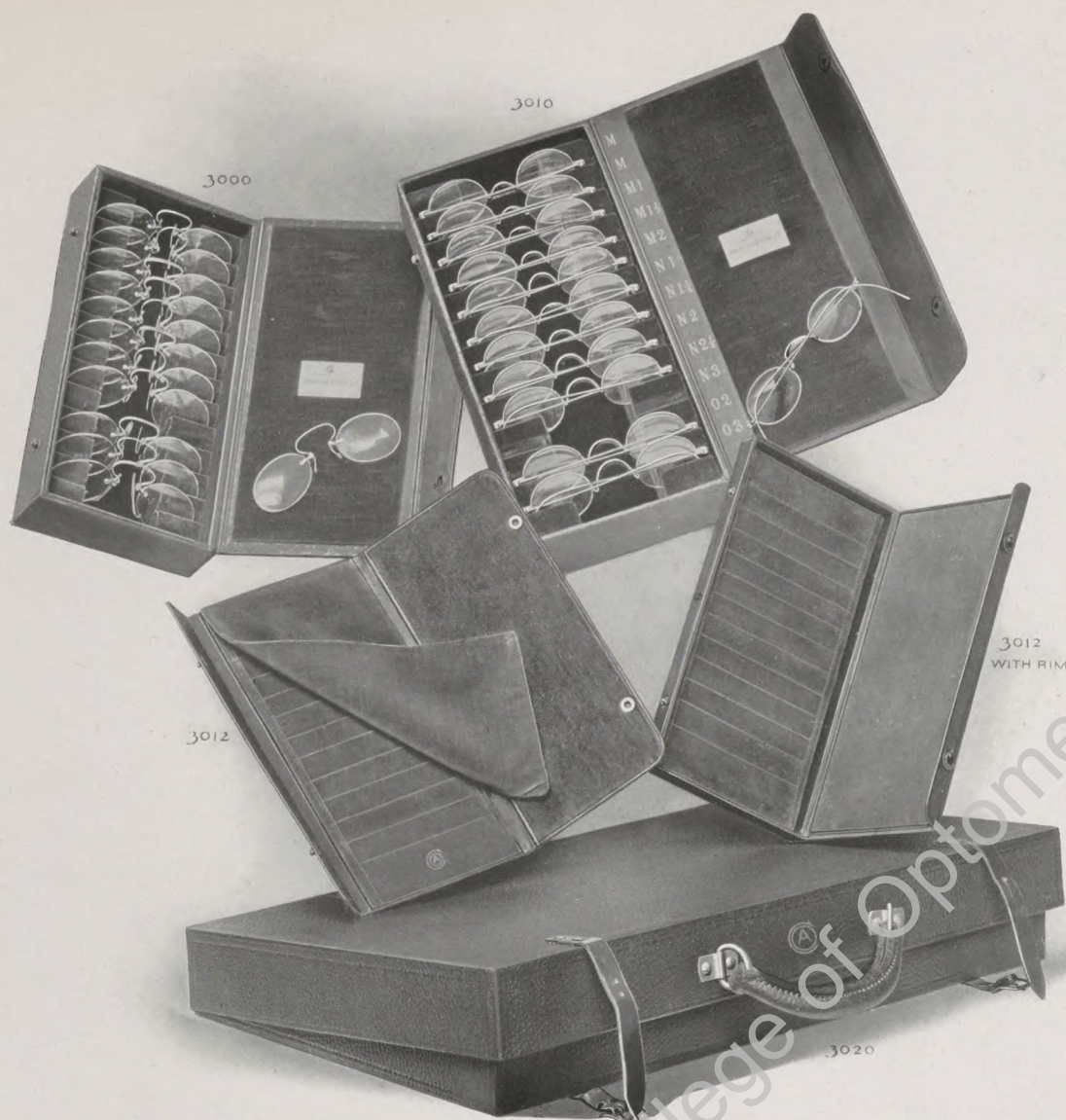
### SPECIAL TRIAL SETS

The above illustration shows a special trial set in cabinet form made to order, and will indicate, when considered in connection with the variety shown on previous pages, our facilities for furnishing any special styles of trial sets made up to suit the needs or fancy of the oculist or optometrist.

### ROLL FRONT AND REGULAR FRAME STOCK CABINET

We are prepared to quote upon and furnish any style of stock cabinet.





## FITTING SETS AND CASES

NUMBER	DESCRIPTION
3000	Set of Eyeglasses for fitting in leather covered case. Containing one dozen assorted 1 eye eyeglasses with reference numbers 1 to 12 etched on the lenses.
3010	Set of Spectacles for fitting in leather covered case. Containing one dozen No. 2207 1 eye fitting frames complete with accurate "SS" bridges. Lenses etched with cross lines and numbered dimensions.
3012	Folio for spectacle fitting frames, leather covered. Holds one dozen riding frames.
3012 WITH RIM.	Case for twelve spectacle fitting frames or mountings, leather covered, one-half inch high inside.
3018	Same as No. 3012, except larger, holds eighteen spectacle fitting frames or mountings.
3020	Carrying case only, to contain tray of trial lenses such as furnished with office sets having contents "A," "B," "C" or "D." See pages 233 and 234. Made in black seal grain or tan leather. Black unless otherwise ordered.

NOTE.—Special Sets of Spectacles or Eyeglasses furnished in any desired assortment.





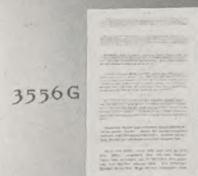
3550½.



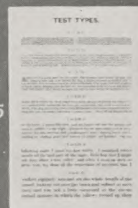
3554



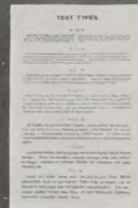
3557



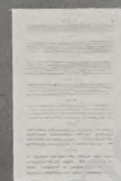
3556 G



3555



3555 G



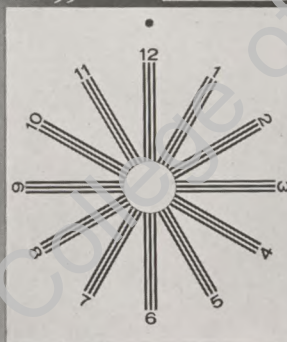
2556



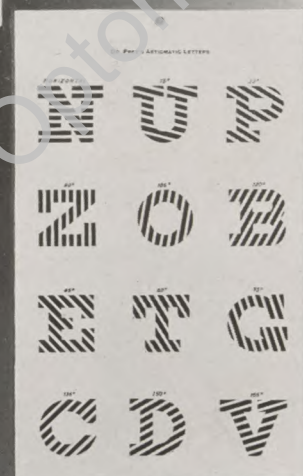
3553



M253



3551



3552

### TEST TYPES, ETC.

NUMBER	DESCRIPTION	NUMBER	DESCRIPTION
3550	Distance test types, size 12 x 18 inches.	3556	Reading test types, size 4 1/8 x 6 3/8 inches.
3551	Clock dial astigmatic chart, size 12 x 13 inches.	3556 G	German reading test types, size 4 1/8 x 6 3/8 inches.
3552	Dr. Pray's astigmatic letters, size 12 x 18 inches.	3557	Distance test types, reversed, for use with mirror, size 12 x 18 inches.
3553	German distance test types, size 12 x 18 inches.	M 252	Protractor, engraved, 5 inches, square.
3554	Illiterate chart, size 12 x 21 inches.	M 253	Protractor, printed, 3 1/2 inches, square.
3555	Reading test types, size 5 1/8 x 8 inches.	M 254	Protractor, printed, 10 1/2 inches, square.
3555 G	German reading test types, size 5 1/8 x 8 inches.		

If above test types are desired with one fold, add  $\frac{1}{2}$  to catalogue number, as 3550  $\frac{1}{2}$ .

Nos. 3555 and 3555 G may be supplied with two folds, add  $\frac{3}{4}$  to catalogue number.

Folding test types are made with substantial cloth hinges.

For Prentice Prismometric Chart, see illustration, page 205.





## READING TEST TYPE HOLDERS

NUMBER	DESCRIPTION
3562	Leather covered, water grain, solid back.
3563	Leather covered, seal grain, double folio, padded covers, English and German.
3563 1/2	Leather covered, seal grain, double folio, plain covers, English and German.
3565	Oak or mahogany, skeleton frame with handle.
3565 1/2	Oak or mahogany, skeleton frame without handle.
3566	Oak or mahogany, solid back with handle.
3566 1/2	Oak or mahogany, solid back without handle.

Test cards are supplied with all above holders. Extra cards for same carried in stock, see preceding page.  
Specify oak or mahogany in ordering wood holders.



## TRIAL RINGS, TRIAL FRAMES AND ACCESSORIES

THE American Optical Company line of Trial Frames, illustrated and described in the following pages, is the largest and most complete line of these goods on the market. It comprises also the frames which are acknowledged the best and most convenient for the oculists' and optometrists' use. Many of the frames are protected by Letters Patent. They are made by skilled workmen, and the greatest care is exercised to have them accurate in their graduations and perfect in operation.

The line of trial rings furnished with our trial sets and shown on page 263 includes the various styles now most popular.

No. 1801 style rings are made of alumnico white non-tarnishable metal, and possess the advantage of light yet strong and neat construction and the ready interchange of lenses. Alumnico rings are always furnished nickel-plated unless otherwise ordered.

No. 1801 rings may be supplied gold-plated for concave lenses, if so ordered, and at an extra charge.

No. 1806 Nachet rings are furnished nickel-plated for convex lenses, prisms, and disks, and in gilt for concave.

Nos. 1801, 1802, 1806 and 1812 rings may be had with black oxidized finish, and focus numbers stamped in white, if so desired, at an extra charge.

No. 1821 gold-filled rings are supplied only when specially ordered.



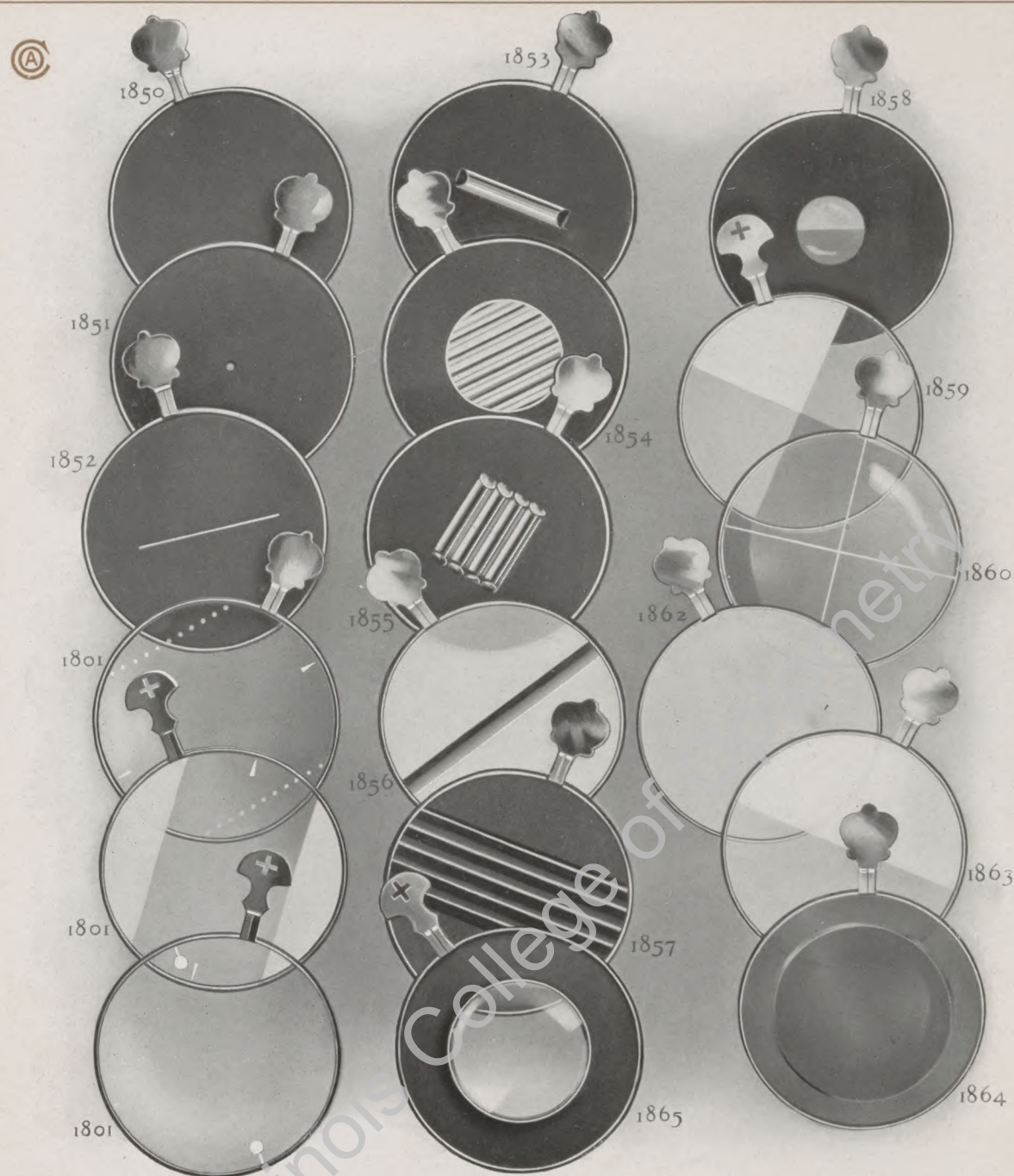


## T R I A L   R I N G S

- No. 1800   Rings, Nachet style, 38 mm. outside diameter.   Solid oblong handle  
 No. 1801   Rings, Alumnico, 38 mm. outside diameter;   No. 1803   Rings, same except 33 mm. outside diameter  
 No. 1806   Rings, Nachet style, 38 mm. outside diameter;   No. 1804   Rings, same except 33 mm. outside diameter  
 No. 1821   Rings, gold filled, 38 mm. outside diameter;   No. 1823   Rings, same except 33 mm. outside diameter  
 No. 1802   Rings, extra fine gilt and white, 38 mm. outside diameter  
 No. 1812   Rings, extra fine gilt and white, 38 mm. outside diameter

NOTE.—No. 1800 rings may be also furnished 33 mm. outside diameter.   No. 1812 rings without handles have milled edge.





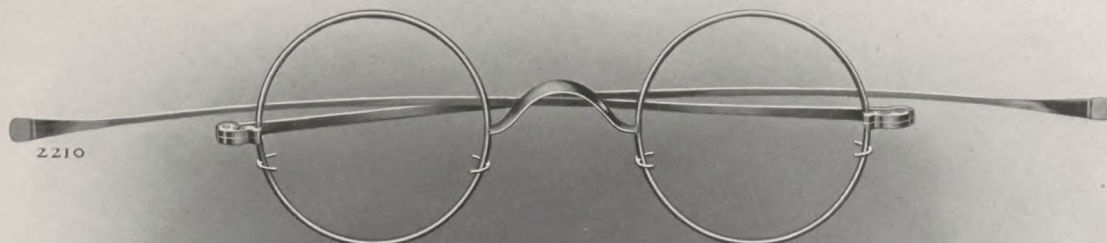
DISKS

No. 1850	Blank disk	No. 1853	Maddox rod, white or red	No. 1858	Maddox prism
No. 1851	Pinhole disk	No. 1854	Maddox multiple rod, circular, white or red	No. 1859	Cone prism
No. 1852	Stenopecic disk			No. 1860	Cross line disk
No. 1801	Plano convex cylinder, dotted	No. 1855	Maddox multiple rod, quadruple, white or red	No. 1862	Frosted disk
No. 1801	Plano convex cylinder, frosted	No. 1856	Maddox groove, white or red	No. 1863	Half frosted disk
No. 1801	Plano convex cylinder, Stevenson's axis marking	No. 1857	Maddox multiple groove, white or red	No. 1864	Chromatic test
	No. 1865	Diaphragm disk, for very strong convex or concave trial lenses			

In trial sets disks are mounted in the same style of rings as the lenses. When ordered separately they are furnished in No. 1801 rings, as illustrated above, unless otherwise ordered.

Cylinders in trial sets are always frosted similar to above illustration (1801, upper), unless otherwise ordered.





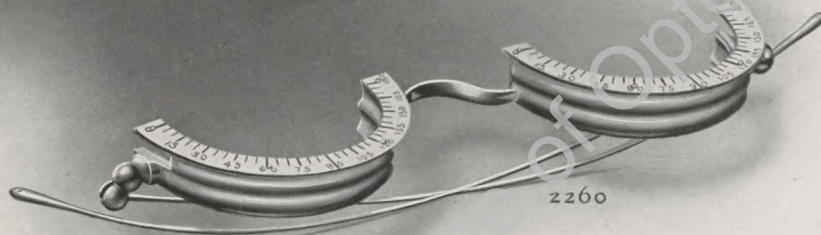
2210



2220



2240



2260

## TRIAL FRAMES

38 MM. NUMBER	33 MM. NUMBER		38 MM. NUMBER	33 MM. NUMBER	
2210	2213	Round eye with hooks for two lenses	2248	2249	Same as No. 2240, except three cell
2220	2223	Single cell, straight temple	2250	2253	Same as No. 2240, except with spring
2230	2233	Same as No. 2220, except with spring	2260	2263	Double cell with metal scale
2240	2243	Double cell, straight temple	2268	2269	Same as No. 2260, except three cell

## TRIAL FRAMES FOR INTERCHANGEABLE LENSES

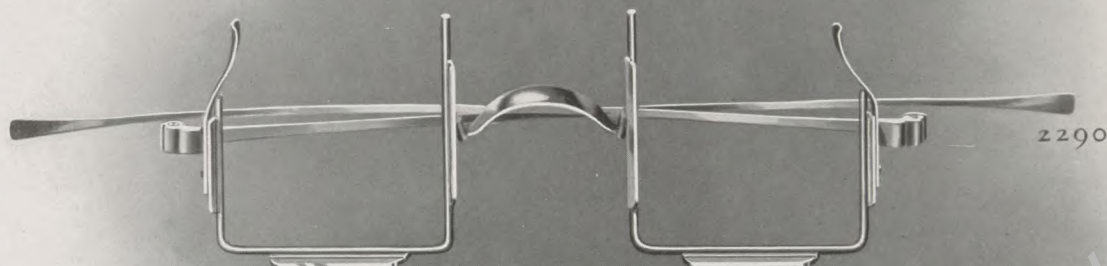
No. 2220-1 1 eye, single cell, straight temple  
 No. 2220-0 0 eye, single cell, straight temple

No. 2240-1 1 eye, double cell, straight temple  
 No. 2240-0 0 eye, double cell, straight temple

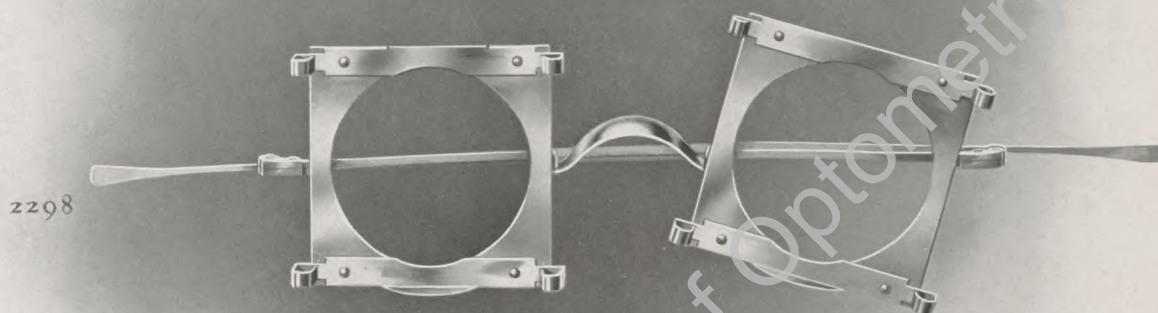




2280



2290



2298

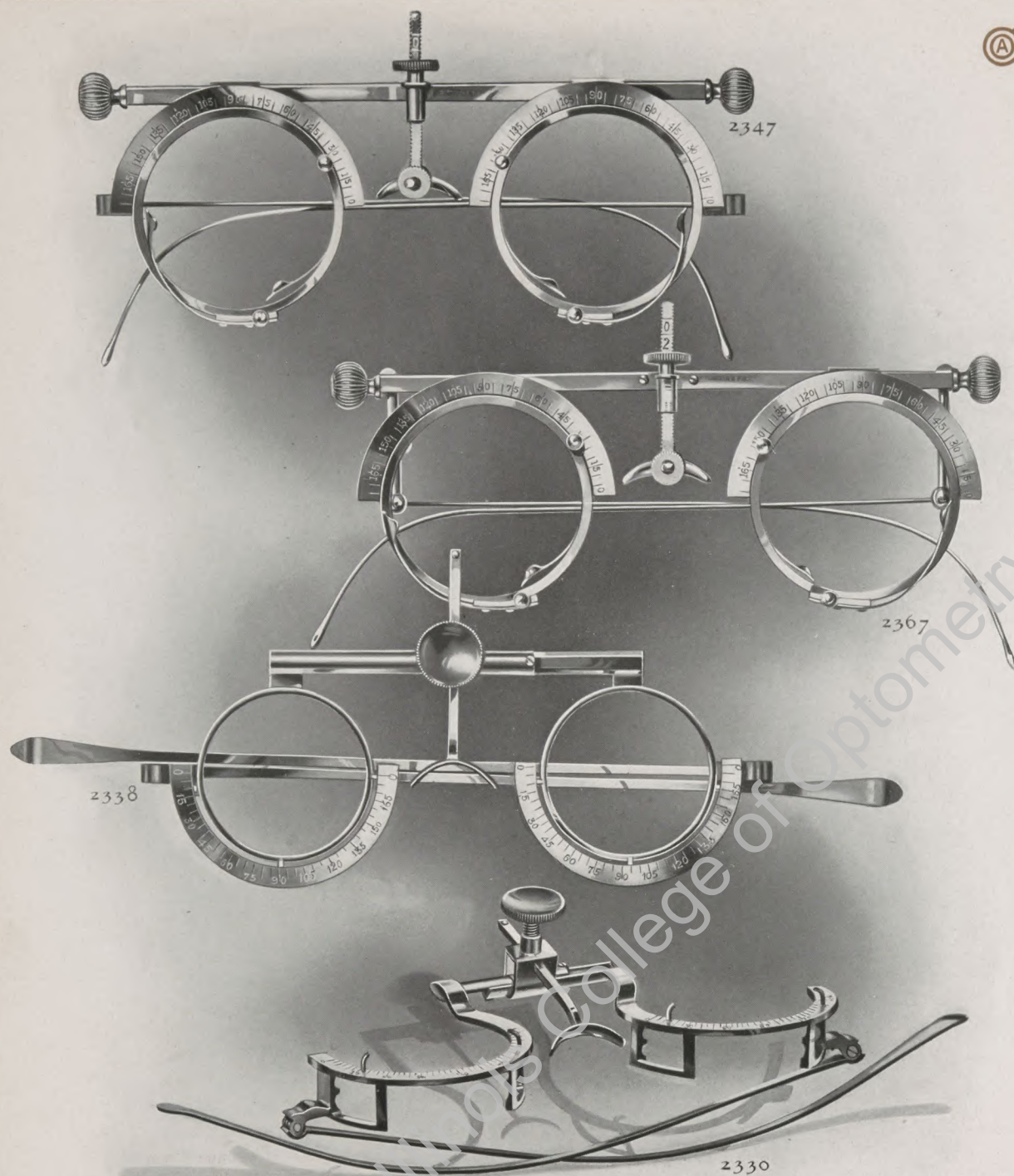


2278

# TRIAL FRAMES

38 MM. NUMBER	33 MM. NUMBER	
2280	2283	Square prism frame, straight temples
2290	2293	Square prism frame, straight temples
2298	2299	Square prism frame, straight temples, revolving cells
2278	2279	Double cell riding temple, celluloid scale, assorted saddle bridges



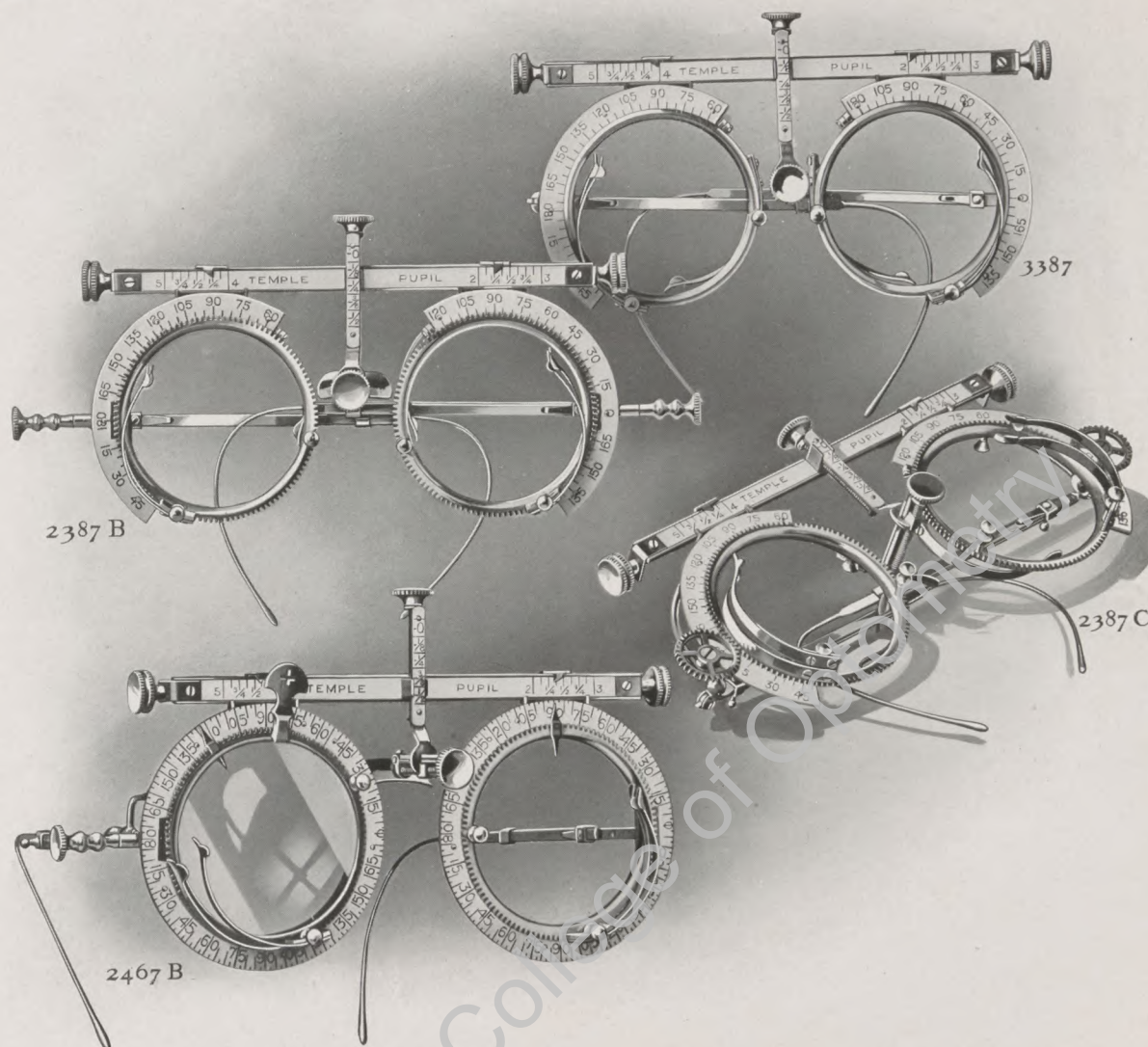


TRIAL FRAMES

38 MM. NUMBER	33 MM. NUMBER	
2347	2343	Patented double cell, metal scale, half-riding temples
2367	2363	Patented double cell, metal scale, half-riding temples
2330	2333	Three cells, metal scale, straight temples
2338	2339	Three cells, metal scale, straight temples



Ⓐ

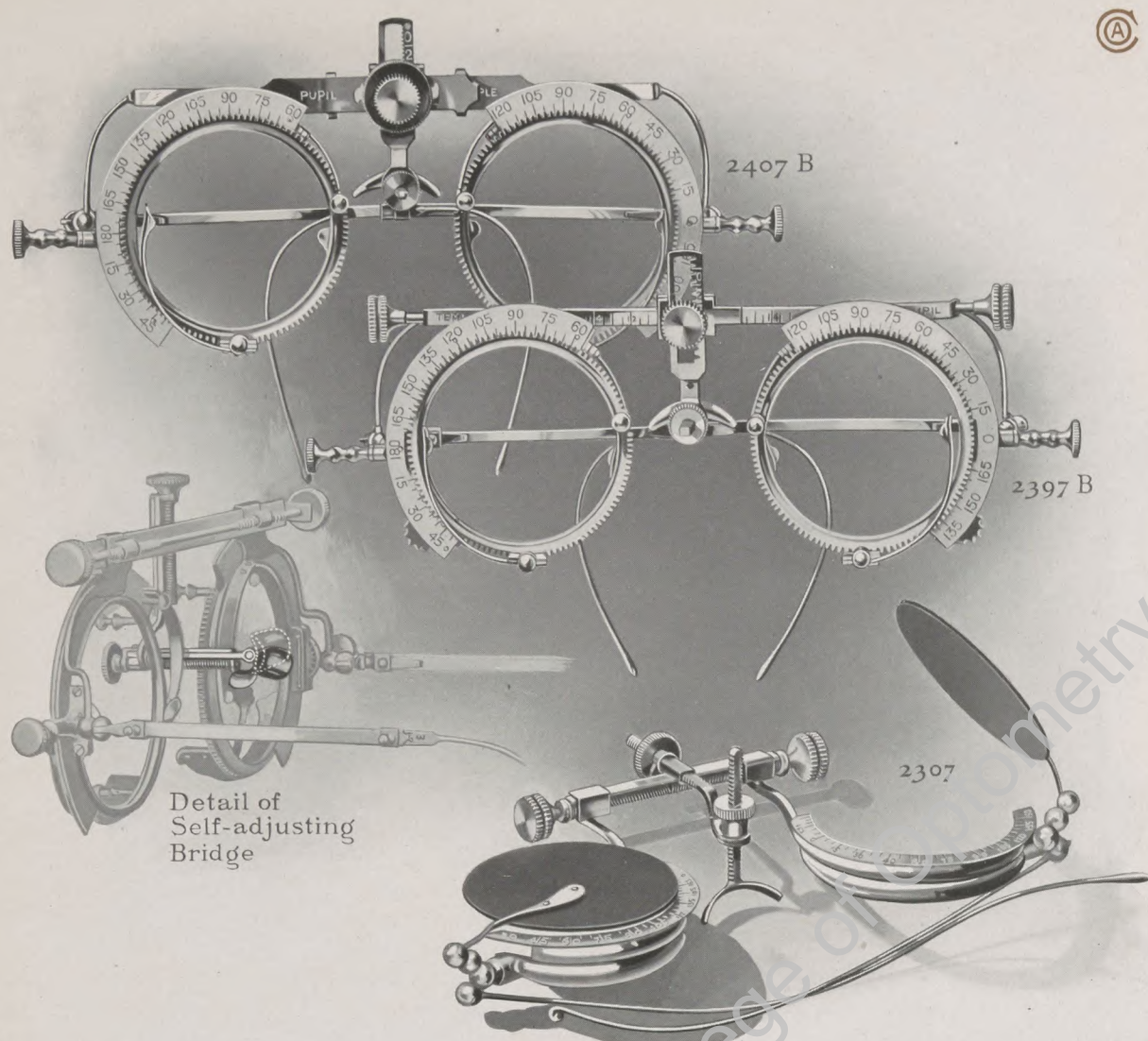


TRIAL FRAMES

38 MM. NUMBER	33 MM. NUMBER	
2387	2383	Patented double cell, Wells extension temples, celluloid scales on eyes and bar
2387 B	2383 B	Patented, same as No. 2387, except patent revolving cell and thumb screw
2387 C	2383 C	Patented, same as No. 2387, except patent revolving cell and thumb wheel
2467 B	-	Patented, same as No. 2387 B, except Rhoad's full circle scale and double axis pointer

- NOTE.—1. Above trial frames made with Wells patent temples unless otherwise ordered.  
 2. Above trial frames made with three cells if desired, subject to an extra charge.  
 3. All patent revolving cell trial frames may be had with lock as shown on frame 2397 B, page 269, if so desired, at a slight additional charge. Specify "with lock."  
 4. Above trial frames can be made with D attachment for independent pupillary adjustment when so ordered, subject to a slight extra charge.  
 5. Self-adjusting Bridge, shown on following page, is regularly supplied on above trial frames without extra charge.



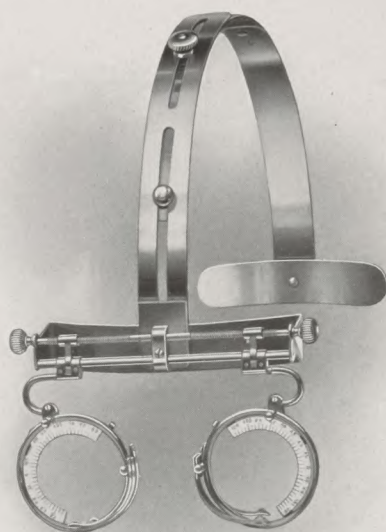


## TRIAL FRAMES

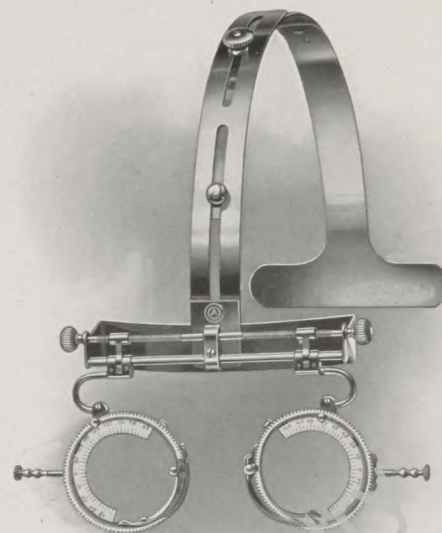
38 MM. NUMBER		33 MM. NUMBER		
2407	-	2403	-	Patented three cell, Wells extension temples, angular celluloid scales on eyes
2407 B	-	2403 B	-	Patented, same as No. 2407, except patent revolving cell and thumb screw
2407 C	-	2403 C	-	Patented, same as No. 2407, except patent revolving cell and thumb wheel (See illustration 2387 C, page 268)
2397	-	2393	-	Patented three cell, Wells extension temples, angular celluloid scales on eyes
2397 B	-	2393 B	-	Patented, same as No. 2397, except patent revolving cell and thumb screw Without lock, unless so ordered
2397 C	-	2393 C	-	Patented, same as No. 2397, except patent revolving cell and thumb wheel (See illustration 2387 C, page 268)
2307	-	2303	-	Patented, drop eye, double cell, metal scale style of illustration, but without hinged shutter, unless so ordered
2308	-	2309	-	Patented, same as No. 2307, except three cells

- NOTE.—1. Above trial frames made with Wells patent temples unless otherwise ordered.  
 2. Above trial frames that are regularly supplied with three cells may be had with double cells when so ordered.  
 3. All patent revolving cell trial frames may be had with lock, as shown in above illustration, if so ordered, at a slight additional charge. Specify "with lock."  
 4. Self-adjusting Bridge, as shown above, is regularly supplied on all revolving cell trial frames without extra charge.





Illustrating No. 2457. "California" Patented Trial Frame complete, for 36 mm. Trial Lenses



Illustrating No. 2457B. "California" Patented Trial Frame complete, for 36 mm. Trial Lenses fitted with Patent Thumb Screw Attachment for revolving the Lenses

### "CALIFORNIA" TRIAL FRAME.—PATENTED

The "California" trial frame represents a distinct modification from ordinary trial frames—not only in its means of support, consisting of a specially constructed adjustable and folding head-band, but in the means of adjustment and use, and details of construction.

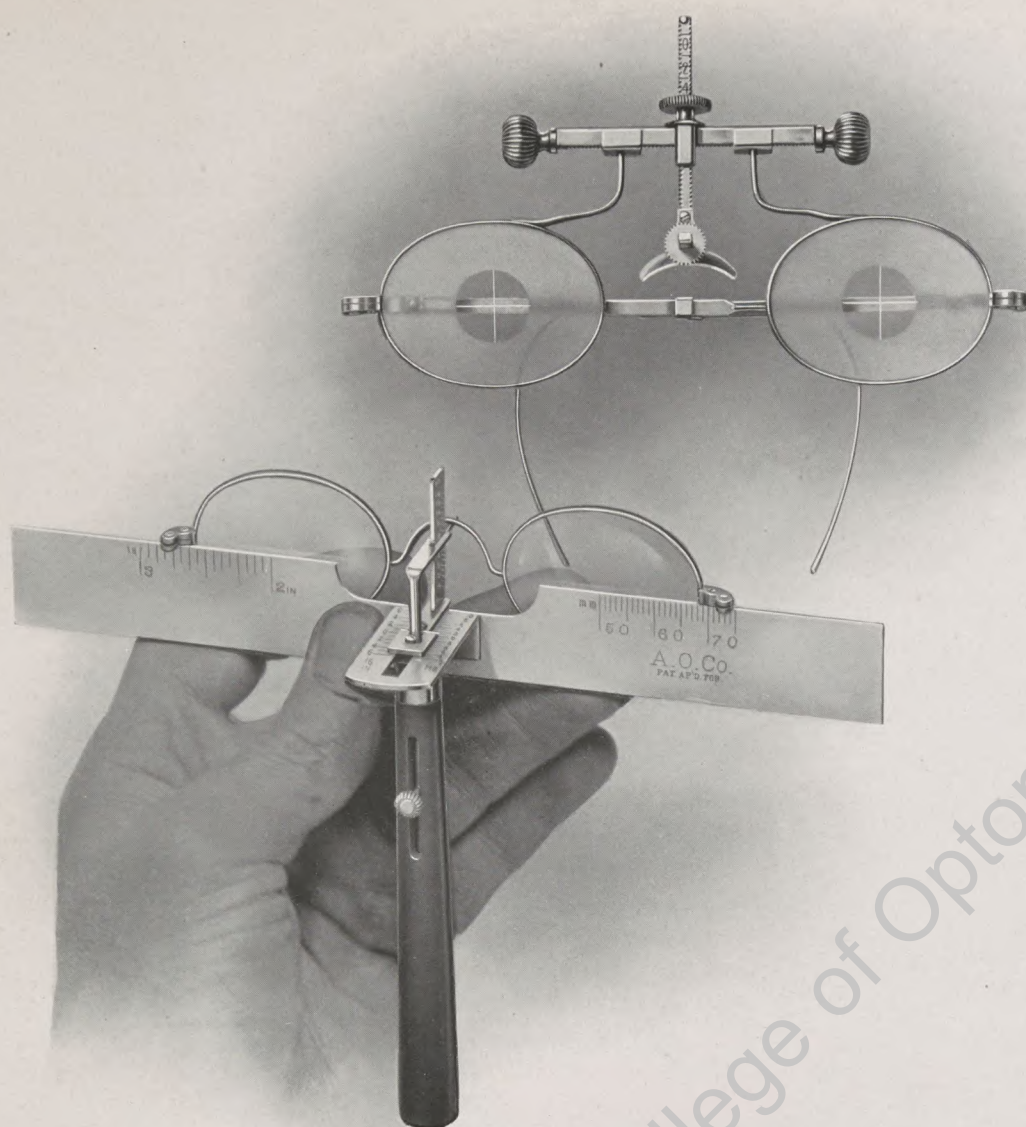
Accuracy of Adjustment A strong feature—the accurate setting of trial lenses to any desired position, namely: With deep set eyes lenses can be set in close; with protruding eyes or long eyelashes lenses can be set accordingly. The reading angle is obtained by tilting lens cells forward. In short, the test is made with trial lenses set in the same position as glasses will be worn when finished.

Adjustment to Compare Correction with Naked Eye An adjustment to raise both lens cells, or one cell only, allows a comparison of lens correction and the patient's own eyes without removing frame.

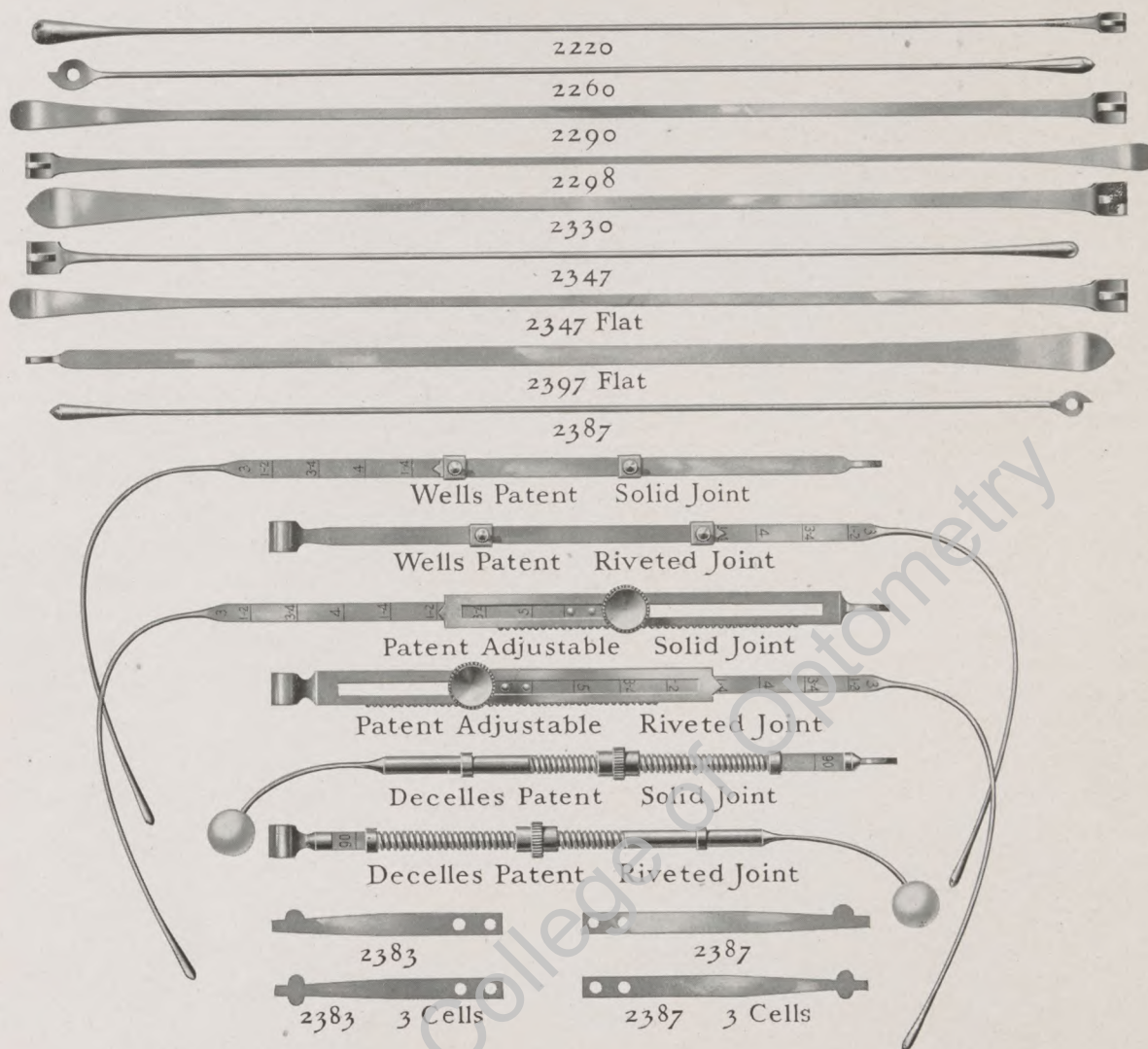
Improved Axis Scale The axis scale is placed inside of lens cell, so that axis mark of cylinder lies directly over scale, making the reading of the axis exact.

Simple Construction The "California" trial frame is simple in construction, there being no complicated parts or unnecessary adjustments. The adjustments are direct and easily and quickly manipulated. It can be taken apart, folded up in a moment into very compact form, and can be put together for use just as readily.









### TRIAL FRAME, TEMPLES AND SPRINGS, NICKEL-PLATED

Wells patent or patent adjustable temples supplied with ball tips (shown on Decelles temple) if so ordered.

In ordering temples only, give catalogue number as above.

If any special style of temple illustrated above is desired on a trial frame regularly made otherwise, give catalogue number of frame and number of temple as above.



methods. Intelligent selection of the best materials and the application of patented structural features to the goods themselves have, as a net result, developed a product unapproached in character, serviceability and mechanical excellence.

Every genuine AOCo case is stamped inconspicuously with this mark ©, a positive guarantee of case excellence signifying product of sterling character substantially and honestly built.

The AOCo product reflects credit upon the oculist or optometrist who adopts this line for his work, and it sustains the AOCo claim for leadership in the spectacle and eyeglass case industry.

Patented, Self-closing Styles We long since realized that the self-closing types of metal form cases would gradually replace to a great extent the paper form open-end goods. In support of this belief we have maintained an entire mechanical department devoted exclusively to the development of ideas and improvements not only in the construction of the goods themselves but in the machinery and methods for their manufacture. We have succeeded in making many important improvements in self-closing styles of cases which, being protected by patents, give the AOCo line exclusive advantages over the ordinary types offered. These refinements include a more substantial and compact spring mechanism—a rigid hinge giving a positive action.

In machinery and methods we have developed automatic covering and lining devices which produce a perfectly smooth, uniform appearance and a distinctive character which is a notable feature of the AOCo line. Such improved methods of covering and lining preserve the original grain and general finish of leather which is an exclusive AOCo feature. These improvements, coupled with the employment of expert operatives and the use of only the rust-proof metal and best grades of covering materials, make possible a product far in advance of the nameless goods often made of the cheapest materials by unskilled operatives employing out-of-date hand methods.

The patented self-closing styles of AOCo cases are well shown in the group cuts. (See pages 279, 280, 281 and 282.) In ordering from your wholesaler specify AOCo make and look for the trade mark © on each case.

Polished Aluminum Cases The AOCo line of polished aluminum (PA) cases, introduced within the past few years, has been received with marked favor and is one of our most important specialties. The lightness of the metal itself combined with its attractive finish and color appeals at once to the discriminating tastes of the best class of patronage. Polished aluminum cases are made in the button cover form and in all of the popular self-closing styles.

The PA<sup>1</sup> and PA<sup>2</sup> designs, shown on page 282, are very attractive, and are considered good sellers. New designs are to be added from time to time. The "oxidized" styles, which can be furnished with back-

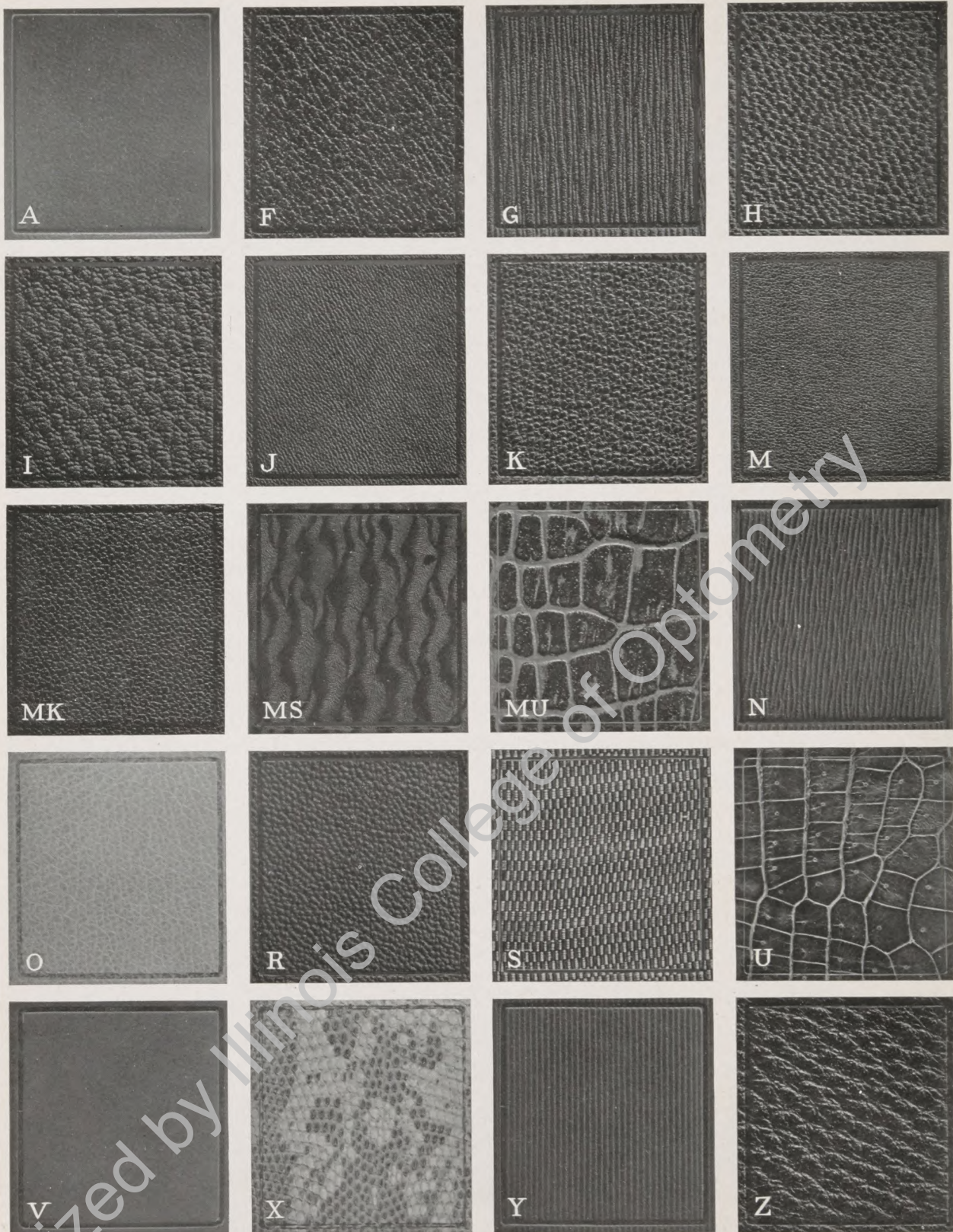
ground in colors—red, green and blue—as well as black, make a handsome addition to the line, especially for holiday trade.



Patented Self-closing Case with Gold Stripe on Cover

Japtol Cases Japtol (trade mark, registered), is a special preparation which we use for coating uncovered metal cases. The process of applying this material imparts a hard-rubber finish, making a very desirable low-priced line of metal form goods.





AOCO CASE COVERING MATERIALS  
For description, see opposite page



## AOCO CASE COVERING MATERIALS AND FINISHES

A Skiver, black	J Water Grain, black	MS Vicar Silk, black	S 1 Silk, red
A 1 Skiver, red	J 1 Water Grain, red	MS 1 Vicar Silk, red	S 3 Silk, green
A 3 Skiver, green	J 2 Water Grain, green	MS 3 Vicar Silk, green	S 7 Silk, gray
A 4 Skiver, blue	J 4 Water Grain, blue	MU 3 Vicar, Alligator Grain, green	U 3 Genuine Alligator, green
C Chamois, natural	K Genuine Morocco, black	MU 6 Vicar, Alligator Grain, brown	U 6 Genuine Alligator, brown
C 1 Chamois, red	K 1 Genuine Morocco, red	MU 7 Vicar, Alligator Grain, gray	V French Calf, black
C 2 Chamois, wine	K 2 Genuine Morocco, wine	N Long Grain Morocco, black	V 1 French Calf, red
C 3 Chamois, green	K 3 Genuine Morocco, green	N 1 Long Grain Morocco, red	V 2 French Calf, wine
C 4 Chamois, blue	K 4 Genuine Morocco, blue	N 2 Long Grain Morocco, wine	V 3 French Calf, green
C 5 Chamois, white	K 6 Genuine Morocco, brown	N 3 Long Grain Morocco, green	V 4 French Calf, blue
C 6 Chamois, brown	L Leatherette, black	O Genuine Pigskin	V 6 French Calf, brown
C 7 Chamois, gray	M Vicar, Water Grain, black	P Paper, black	X Genuine Lizard, black
F Levant Grain, black	M 2 Vicar, Water Grain, wine	R Extra Quality Morocco Grain, black	X 3 Genuine Lizard, green
G Long Grain, black	M 3 Vicar, Water Grain, green		X 6 Genuine Lizard, brown
G 1 Long Grain, red	MK Vicar, Morocco Grain, black		X 7 Genuine Lizard, gray
G 3 Long Grain, green	MK Vicar, Morocco Grain, wine		Y 1 Genuine Russia Calf, red
G 4 Long Grain, blue	MK 3 Vicar, Morocco Grain, green		Y 3 Genuine Russia Calf, green
H Morocco Grain, black			Z Genuine Seal, black
I Seal Grain, black			JAP Japtol Finish
			PA Polished Aluminum

*AOCO Leathers and Other Covering Materials* The accompanying illustration conveys an idea of the covering materials that are employed for AOCO spectacle and eyeglass cases. It will be noted from the list that many of the different kinds can be supplied in several colors. Black water grain (J) leather is most largely employed and AOCO cases covered with this material are regularly carried in the stocks of representative wholesalers.

*Vicar* (trade mark, registered), is a special covering material made in close imitation of leather and silk. It will outwear leather and has rapidly gained favor where serviceability at low cost is particularly desired.

*In Ordering Cases* always give catalogue number which indicates the form of case wanted and add the letter which carries the covering material. If ornaments are desired add also catalogue number of ornament, viz.: 327 J 3 / 24 signifies self-closing style case for RB spectacles covered with red water grain buffing to which is to be applied silver-plated center ornament No. 24. If chamois lining is required add C to catalogue number.

*Linings* Particular attention is called to the quality of linings used in AOCO spectacle and eyeglass cases. In all the regular and patented self-closing styles an excellent grade of velveteen is employed in colors to match the covering materials, which more than compares favorably with other makes. The colors are richer and less likely to fade. In our better grades of PA cases a fine quality of silk velvet is used; while in the Vicar covered and regular PA styles a ribbed or corduroy velvet gives an attractive appearance. Chamois linings (C) can be furnished if ordered in natural or other colors. There is a great difference in the quality in chamois on the market, and a careful comparison of material should be made first, before considering competitive prices.

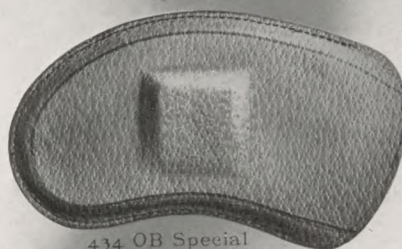
*Goggle Cases* The AOCO line of goggle cases, shown on page 285, is intended to include all styles necessary for containing the entire line of AOCO automobile goggles. These cases are of the same workmanship and materials which characterize the regular AOCO spectacle and eyeglass cases.

*Cases with Screw Drivers* The accompanying illustration, page 278, shows a desirable feature which may be had with any forms of AOCO patented self-closing cases. This consists of a tiny screw driver tucked under a loop in the leather disk that has been pasted in the bottom. The screw driver lies flat, and does not interfere with the glasses. It is intended to be used for tightening glass screws.





434 O Special



434 OB Special



437 OB Special



407 OB Special

"Varsity" Eyeglass Cases. See page 284.

in New York, Chicago, San Francisco, and London, particularly those styles in most general demand. Each office has facilities for lettering cases so that wholesalers may be supplied upon short notice. A list of cases carried in AOC Co. stock will be supplied free upon request.

**Shipping Instructions** It is our custom to ship all goods by express, unless otherwise ordered, therefore, when desirable that spectacle and eyeglass cases be shipped by freight, the order should so state, giving choice of route, if any.

**Special Cases** On page 286 we show a few styles of cases manufactured by us for special purposes. Our extensive equipment and resources enable us to undertake any such work of a special nature and we are always willing to estimate for customers on cases for any purpose whatever.

**All Orders** should be written plainly and the quantity expressed in dozens. If two gross of cases are desired, the order should call for 24 dozen.

**Lettering** If cases are desired lettered with name in gold leaf or gilt leaf, the order should be very explicit, and, if possible, a business card should accompany the order to avoid mistake in spelling. When this is not practical, the instructions for lettering should be printed (not written in script) as neatly as possible. Designs larger than  $\frac{7}{8}$ " x  $1\frac{1}{2}$ " are subject to an extra charge. We recommend the use of brass dies for lettering, and are prepared to supply them at a reasonable cost.

It is possible to letter the finger-piece style cases Nos. 705, 715, 706, 716 and 325 on their covers, thus bringing the business card more forcibly to the attention of the user. To a limited extent, all self-closing cases may be lettered along the lip. This makes a dignified advertisement. A gold stripe may be printed on cover as shown on page 275.

As it is not practicable to letter the metal on PA cases, we frequently letter on linings which presents a very handsome appearance, particularly on colored chamois. Lettering on velvet linings is also an attractive feature.

**Machinery for Case Lettering** including brass type and all necessary supplies, illustrated and listed in Machinery Section, pages 340 and 341.

**AOC Co. Case Stock** We carry large stocks of finished cases at the factory and at our branch offices



Patented Self-closing Case with Screw Driver





## SPECTACLE AND EYEGLASS CASES

Metal Form, Patented Self-closing

CATALOGUE NUMBER				DESCRIPTION				CATALOGUE NUMBER				DESCRIPTION			
Steel Form		Aluminum Form						Steel Form		Aluminum Form					
Flat	Toric	Flat	Toric					Flat	Toric	Flat	Toric				
141	-	-	-	Straight Temple				703	- 707	-	709	- 708	Eyeglass, regular		
	325	-	-	Riding Temple, flat top				713	- 717	-	719	- 718	Eyeglass, large		
326	- 327	-	329	Riding Temple, regular					705	-	-	706	Finger-piece, regular		
	377	-	-	Riding Temple, large					715	-	-	716	Finger-piece, large		
	367	-	-	Riding Temple, extra large											

Specify covering material wanted. See page 277.

No. 367 is especially adapted for Goggles and Shooting Spectacles. See pages 189 and 190.

Nos. 705, 706, 715, 716 and 325 may be lettered on flat cover without extra charge.





### SPECTACLE AND EYEGLASS CASES

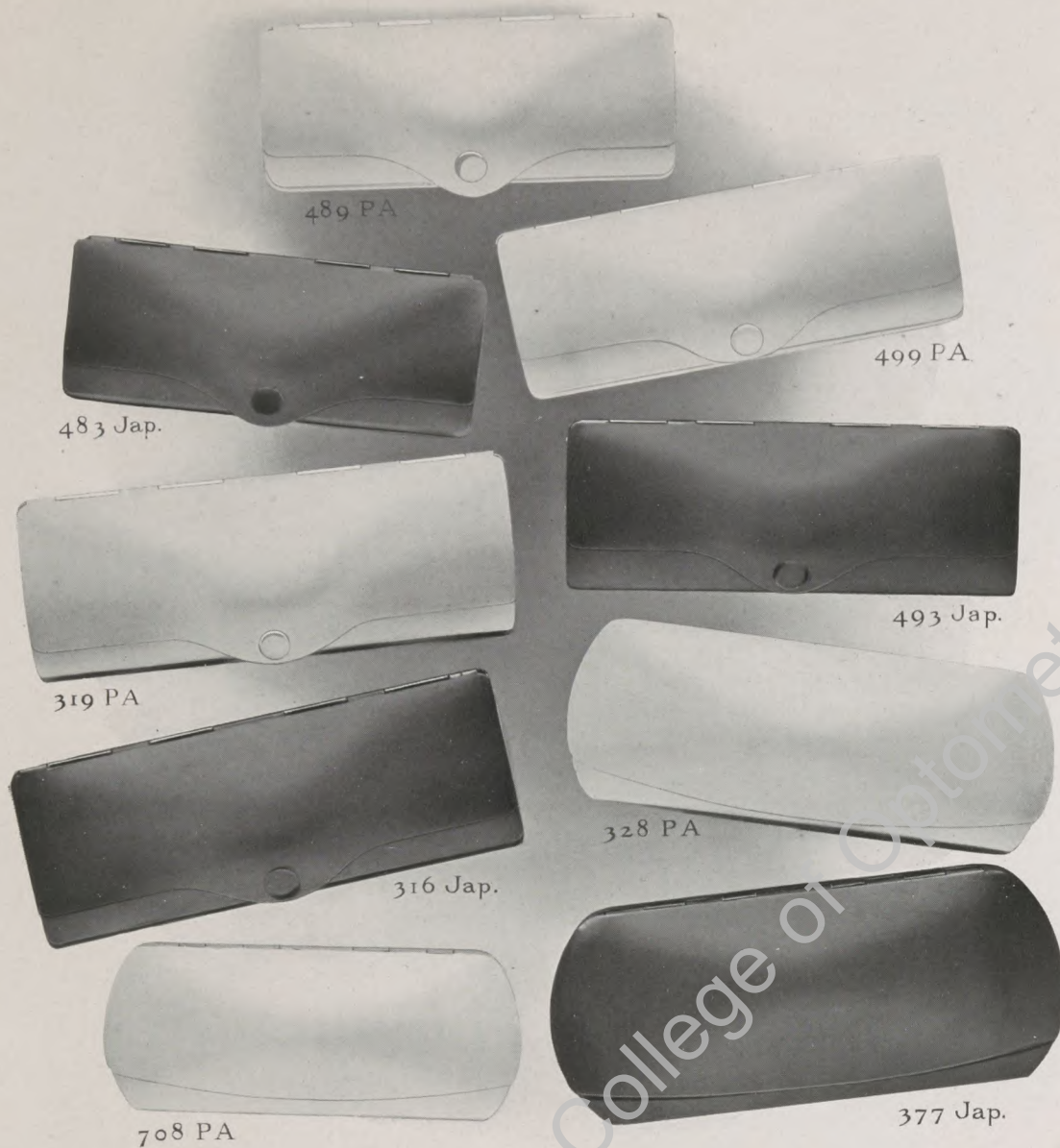
Some Features Applicable to Patented Self-closing and Other Styles

The above illustration shows some of the AOCO covering materials as they actually appear on the case forms. Particular attention is called to VICAR or imitation leather and silk materials, namely, M, MK and MS. A description of these materials is given on page 277. The carved leathers are very attractive and can be furnished on all self-closing styles in the following kinds of leather: K, K 3, K 4, V 3, V 4 and V 6. The silk coverings, S 1, S 3 and S 7 are very popular. Water grain (J) leather is most largely used.

ORNAMENTS FOR SELF-CLOSING STYLES. Band, No. 21, Silver Plate; No. 31, Gold Plate; No. 41, Coin Silver; No. 51, 10k Gold; No. 61, 14k Gold. Corners, No. 23, Silver Plate; No. 33, Gold Plate; No. 43, Coin Silver; No. 53, 10k Gold; No. 63, 14k Gold. Center, No. 24, Silver Plate; No. 34, Gold Plate; No. 44, Coin Silver; No. 54, 10k Gold; No. 64, 14k Gold. Ornaments can be supplied on covered self-closing cases in Riding and Eyeglass, regular and large styles.

Corner ornaments supplied in pairs unless order specifies single corner, in which case right or left side must be stated. All above ornaments are regularly supplied in bright finish.





## SPECTACLE AND EYEGLASS CASES

Jap. and Polished Aluminum

CATALOGUE NUMBER			DESCRIPTION	CATALOGUE NUMBER			DESCRIPTION
Jap. Tol.	Polished Aluminum		Patented Self-closing Toric	Jap. Tol.	Polished Aluminum		Button Covers, Flat
327 JAP	- 328 PA	-	Riding Temple, regular	316 JAP	- 319 PA	-	Riding Temple, regular
377 JAP	- - -	-	Riding Temple, large		- 599 PA	-	Riding Temple, double
367 JAP	- - -	-	Riding Temple, extra large	483 JAP	- 489 PA	-	Eyeglass, regular
	- 708 PA	-	Eyeglass, regular	493 JAP	- 499 PA	-	Eyeglass, large
715 JAP	- 716 PA	-	Finger-piece, large		- 399 PA	-	Riding Temple, double

For description of Jap. Tol. finish, see page 275.

For shape of No. 715 Case, see page 279; No. 399 Case, page 283; Nos. 599 and 399, pages 282 and 283.





## SPECTACLE AND EYEGLASS CASES

Special Styles, Polished Aluminum, Patented Self-closing

Oxidized Cases can be supplied in the following colors : Black, Green, Blue and Red; Black furnished unless otherwise ordered.  
For description of 715 JAP, 367 JAP, and 399 PA, see page 281.  
For special lettering on lip and on lining, see description, page 278.





## SPECTACLE AND EYEGLASS CASES

Metal Form, with Button Covers

CATALOGUE NUMBER				DESCRIPTION			
Steel Form		Aluminum Form		Square Corners			
Flat	Toric	Flat	Toric	-	-	-	-
316	337	319	339	-	-	-	Riding Temple, regular
483	-	-	488	-	-	-	Riding Temple, large
493	-	-	489	-	-	-	Eyeglass, regular
				-	-	-	Eyeglass, large
	497		498	-	-	-	Rounded Ends, Shape of Self-closing Cases
				-	-	-	Eyeglass, large
				-	-	-	Rounded Lower Corners, Square Hinge
306	-	-	-	-	-	-	Riding Temple, regular
463	-	-	-	-	-	-	Eyeglass, regular
473	-	-	-	-	-	-	Eyeglass, large
				-	-	-	Double, for Two Pairs of Glasses
396	-	399	-	-	-	-	Riding Temple, regular
596	-	599	-	-	-	-	Eyeglass, regular

Specify covering material wanted. See page 276.

Nos. 306, 463 and 473 are also furnished with invisible button when so ordered.





CATALOGUE NUMBER					DESCRIPTION	CATALOGUE NUMBER	DESCRIPTION
Straight Temple		Riding Temple				Adjustable Eyeglass	
32 mm. wide	38 mm. wide	41 mm. wide	45 mm. wide	51 mm. wide			
100	112	212	222	232	Open End	405	411
107	-	217	227	-	Tuck End	407	434 Special
				238	Button End		437

The regular length for above Straight Temple Cases is 178 mm.; for Riding Temple Cases, 127 mm. Sizes given above are inside measurements.

"Varsity" styles in Eyeglass Cases in pigskin (O leather) supplied with bulge (B) on one side to accommodate offset guards when so ordered. See page 278.

Specify kind of covering material. See page 276.





### GOGGLE CASES

Paper Form

CATALOGUE NUMBER	DESCRIPTION	CATALOGUE NUMBER	DESCRIPTION
Open End		Button End	
	To hold Goggle Number		To hold Goggle Number
226	As illustrated - - - 316	278	As illustrated - - - 3026
262	As illustrated - - - 3000	381	As illustrated - - - 3052, 3053
272	Style of No. 278, except open end 3026	382	As illustrated - - - 3050, 3051
Tuck End		383	As illustrated - - - 3060
127	As illustrated - - - 211	385	Style of No. 381, large - - - 3398
277	Style of No. 278, except tuck end 3026	386	Style of No. 381, extra large - - - 3066
Button End		387	As illustrated - - - 3068, 3030
268	As illustrated - - - 3000	388	Shown on page 185 - - - 3005

Specify covering material wanted. See page 276.  
For styles of Goggles, see pages 183 to 190, inclusive. See also Case No. 367, page 279.





## MISCELLANEOUS CASES

CATALOGUE NUMBER	DESCRIPTION	CATALOGUE NUMBER	DESCRIPTION
Paper and Leatherette-covered Cases		Cases for Magnifiers	
34	Paper, Straight Temple	417	For Magnifiers Nos. M 258 and M 259
35	Leatherette, same as No. 34	Artificial Eye Cases	
36	Paper, Riding, style of No. 202	18 JC	For one Eye, chamois lined
41	Leatherette, Eyeglass, as illustrated	28 JC	For two Eyes, chamois lined
46	Leatherette, Riding, as illustrated	Eye Wipers, for Cleaning Lenses	
49	Leatherette, Eyeglass, as illustrated	10	As illustrated
Cases for Amoptiscopes		12	As illustrated
27	For Amoptiscope No. 1942½	Eye Shades	
37	For Folding Amoptiscope	4	Wylie Patent, Aluminum, silk covered
47	For Amoptiscopes 50 mm. diameter	5	Same as No. 4, except larger
57	For Amoptiscopes 62 mm. diameter	6	"Chicago", silk covered
67	For Amoptiscopes 75 mm. diameter	7	Same as No. 6, except larger

Amoptiscope Cases regularly supplied in I leather.



EYEGLASS CHAINS  
HAIRPINS HOOKS EAR LOOPS  
CORDS AND MATERIAL  
AUTOMATIC EYEGLASS HOLDERS







View in Chain Department

## EYEGLOSS CHAINS

IN presenting the goods illustrated and listed in the following pages, we have no hesitancy in stating that this comprises the most complete and comprehensive line of Eyeglass Chains, Hairpins, Hooks, Ear Loops, Cords and Material ever offered to the optical trade. The principal reason for our supremacy in this branch of the business is found in the explanation that our extensive equipment enables us to produce these goods from the raw material to the finished product. Many so-called "manufacturers" of eyeglass chains buy the chain ready-made from chain makers, who in their turn, buy the wire from wire manufacturers. In some cases the soldering is even "let out" by contract, so that the "chain factory" in reality merely assembles the findings.

*Raw Stock* From the fine gold we make the alloys of raw stock for gold and gold-filled wire of whatever karat is required, the wire being drawn to the necessary gauge in our own plant. Thus we know to a certainty the exact quality of the chain wire, which is confirmed by careful assays in our laboratories.

*Automatic Chain-making Machines* Our equipment includes a whole battery of automatic chain-making machines, each one set to make one of our many regular or special forms and sizes of chain links. The output of each machine depends upon the size of link it is making, these sizes varying from 7 to 32 links per 25.4 mm. (1 inch) as shown on page 290. These wonderful little machines can produce thousands of metres of chain daily, ready to be soldered and finished. Other special machinery is employed to flatten and curb the links, as these styles are much in demand.





Placing a tiny piece of gold solder on each link

As the sale of eyeglass chains depends largely upon the variety of styles offered, we have found it desirable from time to time to add new styles in hairpins, hooks, ear loops, etc., to the AOCo line, and are pleased to call special attention to the many new styles listed herein and our comprehensive manner of illustrating them. Other new styles are being added frequently.

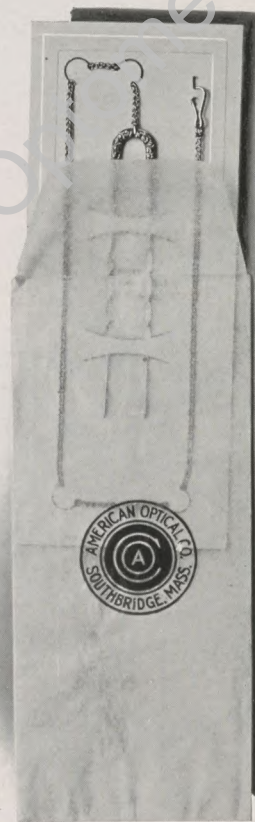
**Stock** We regularly carry in stock more than 3000 metres of gold eyeglass chain and 7500 metres of gold-filled eyeglass chain. In addition, we carry a stock of more than 10,000 dozen of hooks, hairpins and ear loops in gold and gold-filled, and correspondingly large stocks of small material, such as snaps, cords, rings, etc., thus enabling us to promptly meet any demands made by our customers.

**Gold Chains** We have instituted a new departure in this line by making four weights;  $\frac{1}{4}$ ,  $\frac{1}{2}$  and  $\frac{3}{4}$  added to chain number designating medium, heavy and extra heavy, respectively. Regular weight is designated by the number without adding fraction. On the coarser link chains we recommend using the medium and heavy weights.

**Gold-filled Chains** We have made notable improvements in this line, adopting as our regular quality 12k instead of 10k gold-filled and using a thicker covering of gold. We make all gold-filled chains with gold soldered links.

**Packing** In our own printing and box-making departments we cut, punch, print and emboss the cards upon which chains and chain material are mounted and produce the boxes into which they are finally packed. So one can readily appreciate the statement that these chains are essentially an AOCo product from the start.

**Quality** Careful inspection and rigid supervision by which we control the many operations in chain manufacture insures absolute uniformity in quality, color and workmanship. Comparisons with the products of other factories will at once reveal the superiority of the AOCo line and the usual tests and assays will show an appreciable balance in our favor.



AOCo method of packing chains in anti-tarnish translucent envelopes





Eyeglass  
Cords  
in folders.  
See page 298

**Special Chains** We are prepared to make special chains, hairpins, hooks, ear loops, cords and material and should be glad to quote on samples submitted by our customers.

**Lengths of Chains** Our standard lengths for chains (including snap) are as follows:

For Hairpin Chains, 229 mm. (9 inches).

For Hook Chains, 330 mm. (13 inches).

For Short Hairpin Chains, 203 mm. (8 inches).

For Ear Loop Chains, 102 mm. (4 inches).

Special lengths of chains will be supplied when so ordered.

**Comparative Sizes of Links** The accompanying illustration will give a fair idea of the comparative sizes of links referred to in the following pages.

This will be found to be of assistance in selecting the sizes of chains wanted in ordering.

**System of Numbering** The chains, as will be noted, are listed according to the number of links per 25.4 mm. (1 inch), and the figure in the unit column indicates the style of link, 0 designating cable link; 1 curbed or twisted; and 2 flat or swaged link.

**In Ordering** complete chains it is necessary to give catalogue number, style of hairpin, hook, ear loops, etc., desired and quality. On hooks, hairpins and material, it is necessary to give catalogue number, or letter and quality. See pages 299, 300 and 301.



Links per 25.4 mm. (1 inch). Illustration shows full size

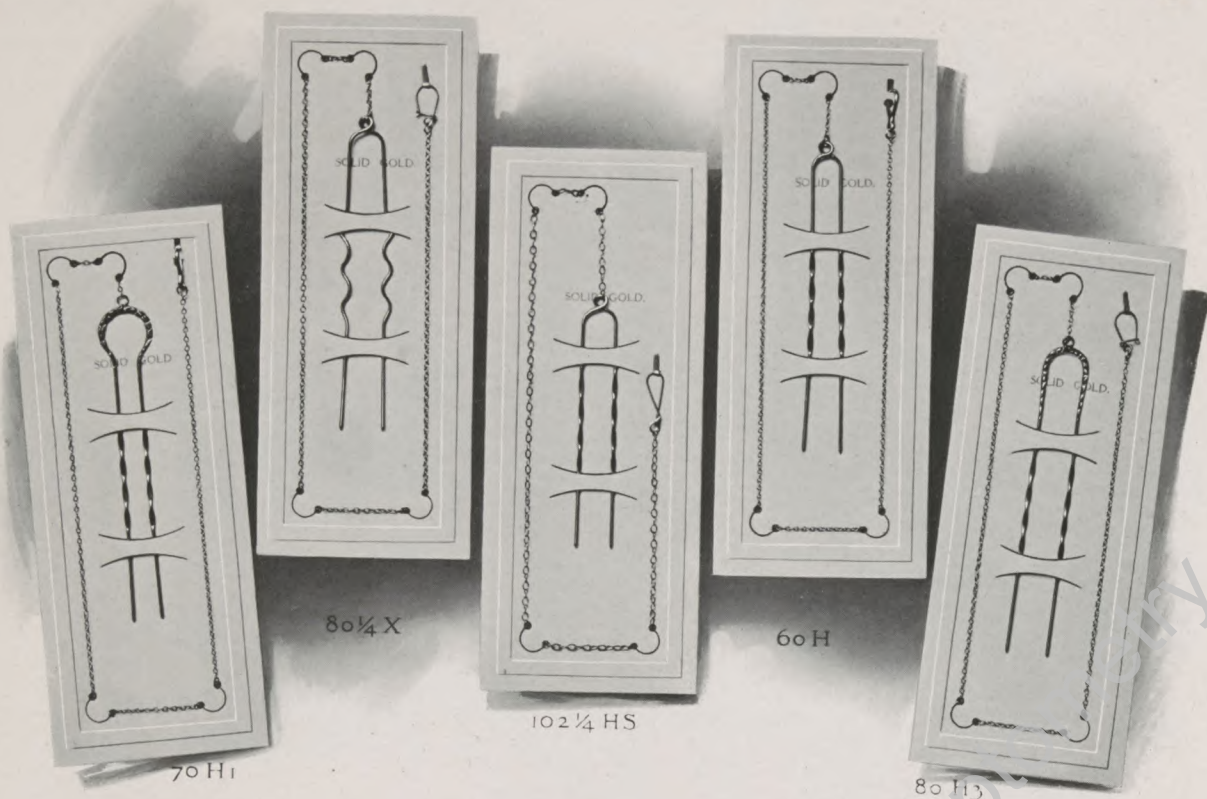
**“AOCO” AUTOMATIC EYEGLASS HOLDERS.—PATENT APPLIED FOR**

**Construction** In developing the new “AOCO” Automatic Eyeglass Holder, our object has been twofold: First, by reducing the number of parts materially to so simplify the mechanical construction that to take down or reassemble becomes a very simple procedure. Second, we have so designed the mechanism that the three essential features, viz.: the drum or reel, the spring, and the catch and pawl are kept separate so that the action of one part can in no way interfere with the workings of any other. This means long service and a perfect action, overcoming the objectionable features of the ordinary types.

**Design** A few designs for “AOCO” Holders are shown on page 302. We shall add other styles from time to time and announce them through the medium of our publication *Amoptico*.

**Guarantee** These goods are sold under a liberal guarantee by which we stand prepared to replace any that may be found defective in material or workmanship.





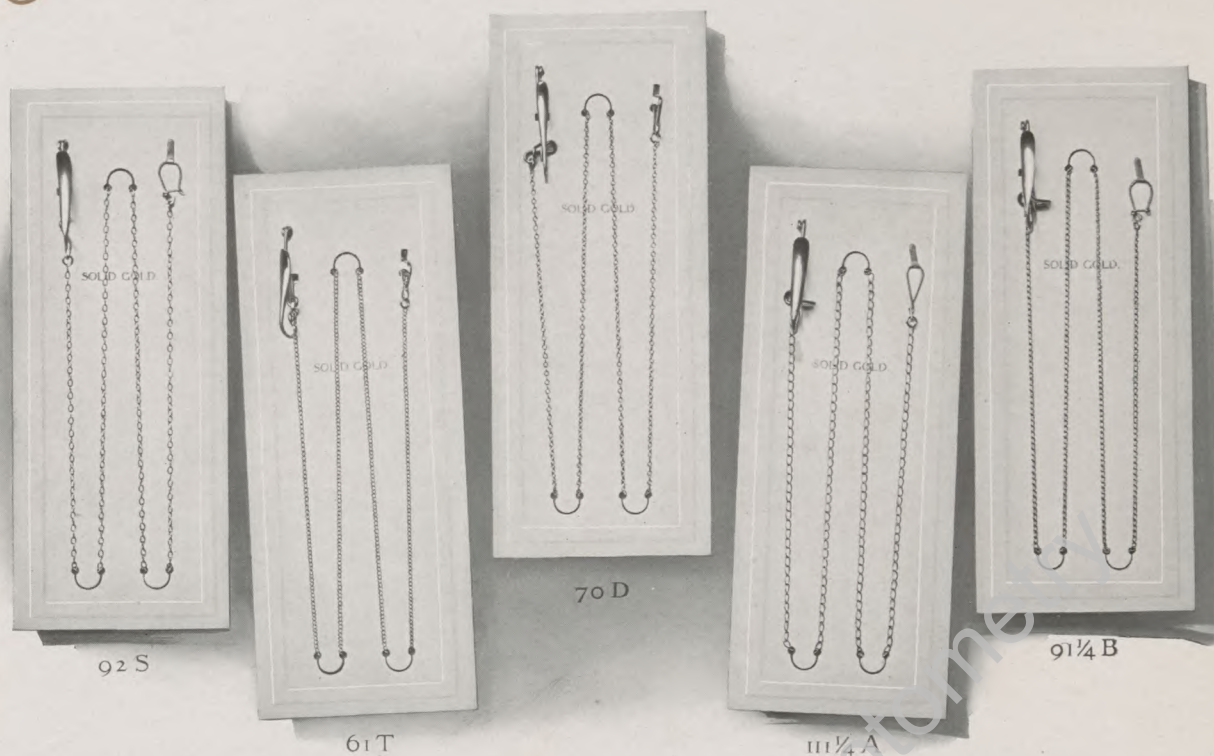
## SOLID GOLD HAIRPIN CHAINS

Made in 10k Gold and 14k Gold, also 10k Gold with Gold-filled Hairpins and Snaps

CATALOGUE NUMBER				DESCRIPTION			
Cable Link		Curbed Link		Flat Link	Links per 25.4 mm. (1 inch)		Weight
60	-	61	-	62	-	32	Light
65	-	65-1	-	65-2	-	30	Medium
70	-	71	-	72	-	28	Light
80	-	81	-	82	-	24	Light
80 1/4	-	81 1/4	-	82 1/4	-	24	Medium
90	-	91	-	92	-	20	Light
90 1/4	-	91 1/4	-	92 1/4	-	20	Medium
90 1/2	-	91 1/2	-	92 1/2	-	20	Heavy
100	-	101	-	102	-	16	Light
100 1/4	-	101 1/4	-	102 1/4	-	16	Medium
100 1/2	-	101 1/2	-	102 1/2	-	16	Heavy
110	-	111	-	112	-	12	Light
110 1/4	-	111 1/4	-	112 1/4	-	12	Medium
110 1/2	-	111 1/2	-	112 1/2	-	12	Heavy
110 3/4	-	111 3/4	-	112 3/4	-	12	Extra Heavy
180	-	-	-	-	-	Foxtail	

Always specify style of Hairpin desired. See page 299.  
Regular Snaps furnished when other styles are not specified.





### SOLID GOLD HOOK CHAINS

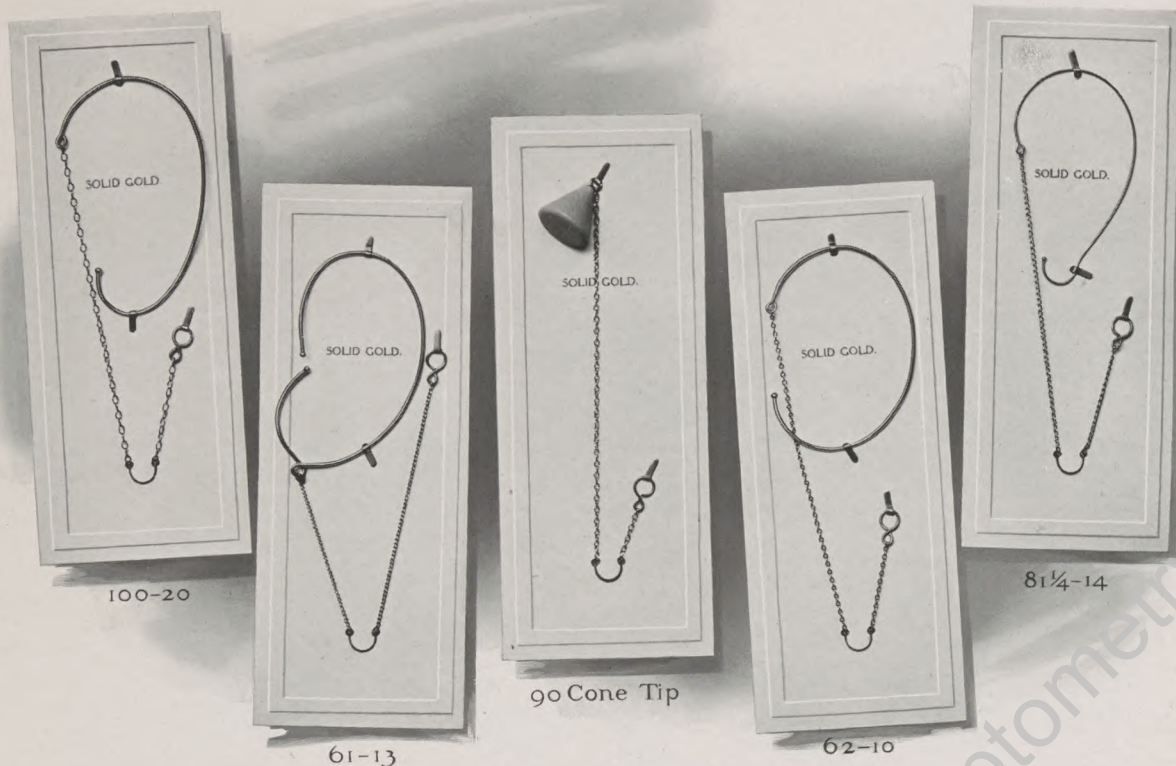
Made in 10k Gold and 14k Gold, also 10k Gold with Gold-filled Hooks and Snaps

CATALOGUE NUMBER			DESCRIPTION		
Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Weight	
60	61	62	32	Light	
65	65-1	65-2	30	Medium	
70	71	72	28	Light	
80	81	82	24	Light	
80 1/4	81 1/4	82 1/4	24	Medium	
90	91	92	20	Light	
90 1/4	91 1/4	92 1/4	20	Medium	
90 1/2	91 1/2	92 1/2	20	Heavy	
100	101	102	16	Light	
100	101 1/4	102 1/4	16	Medium	
100 1/2	101 1/2	102 1/2	16	Heavy	
110	111	112	12	Light	
110 1/4	111 1/4	112 1/4	12	Medium	
110 1/2	111 1/2	112 1/2	12	Heavy	
110 3/4	111 3/4	112 3/4	12	Extra Heavy	
180	-	-	Foxtail		

Always specify style of Hook desired. See page 300.

Regular Snaps furnished when other styles are not specified.





## SOLID GOLD EAR LOOP CHAINS

Made in 10k Gold and 14k Gold

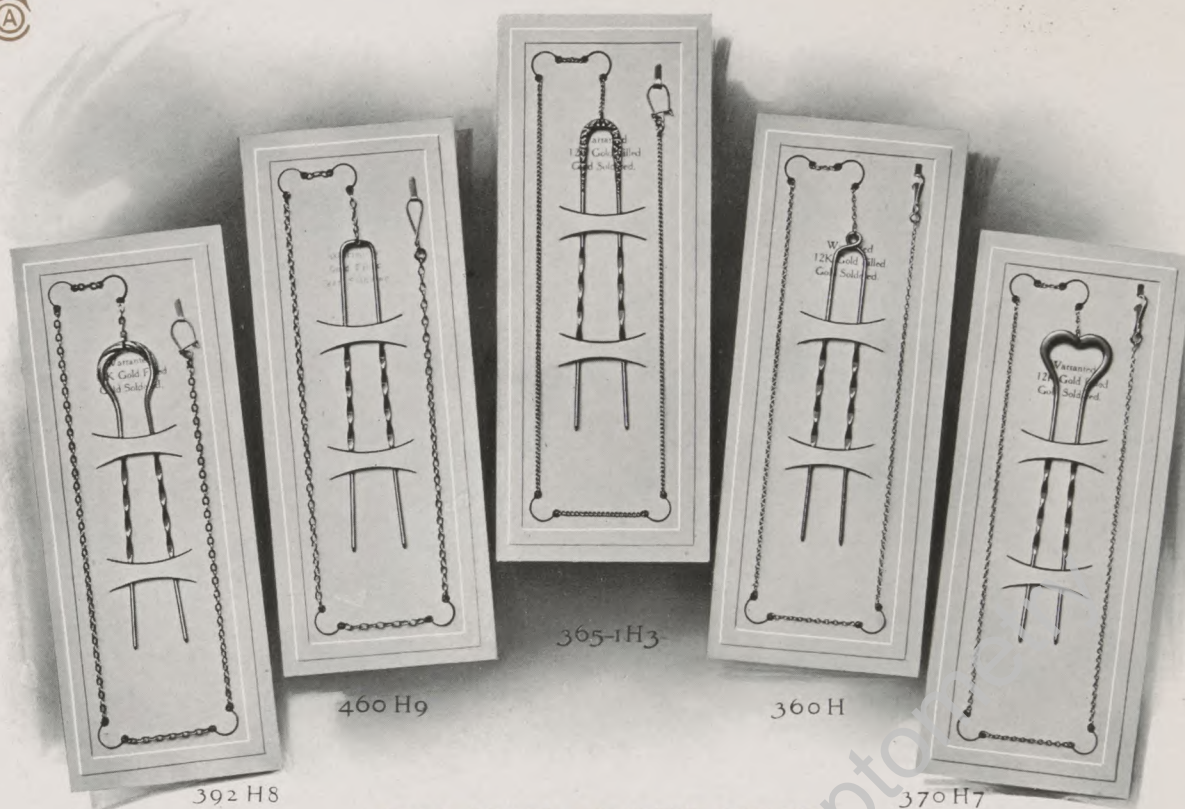
CATALOGUE NUMBER

DESCRIPTION

Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Weight
60	61	62	32	Light
65	65-1	65-2	30	Medium
70	71	72	28	Light
80	81	82	24	Light
80 1/4	81 1/4	82 1/4	24	Medium
90	91	92	20	Light
90 1/4	91 1/4	92 1/4	20	Medium
90 1/2	91 1/2	92 1/2	20	Heavy
100	101	102	16	Light
100 1/4	101 1/4	102 1/4	16	Medium
100 1/2	101 1/2	102 1/2	16	Heavy
110	111	112	12	Light
110 1/4	111 1/4	112 1/4	12	Medium
110 1/2	111 1/2	112 1/2	12	Heavy
110 3/4	111 3/4	112 3/4	12	Extra Heavy
180			Foxtail	

Always specify style of Ear Loop desired. See page 301.  
Figure 8 Snaps furnished when other styles are not specified.





### GOLD-FILLED HAIRPIN CHAINS

Made in 12k and 14k Gold-filled and Extra Quality 14k Gold-filled. Gold-soldered

CATALOGUE NUMBER				DESCRIPTION				CATALOGUE NUMBER				DESCRIPTION			
Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)
360	-	361	-	362	-	32	400	-	401	-	402	-	-	16	
365	-	365-1	-	365-2	-	30	410	-	411	-	412	-	-	12	
370	-	371	-	372	-	28	420	-	421	-	422	-	-	9	
375	-	375-1	-	375-2	-	20	430	-	431	-	432	-	-	7	
380	-	381	-	383	-	24	450	-	451	-	452	-	-	12	
385	-	385-1	-	385-2	-	20	500	-	501	-	502	-	-	20	
390	-	391	-	392	-	20									

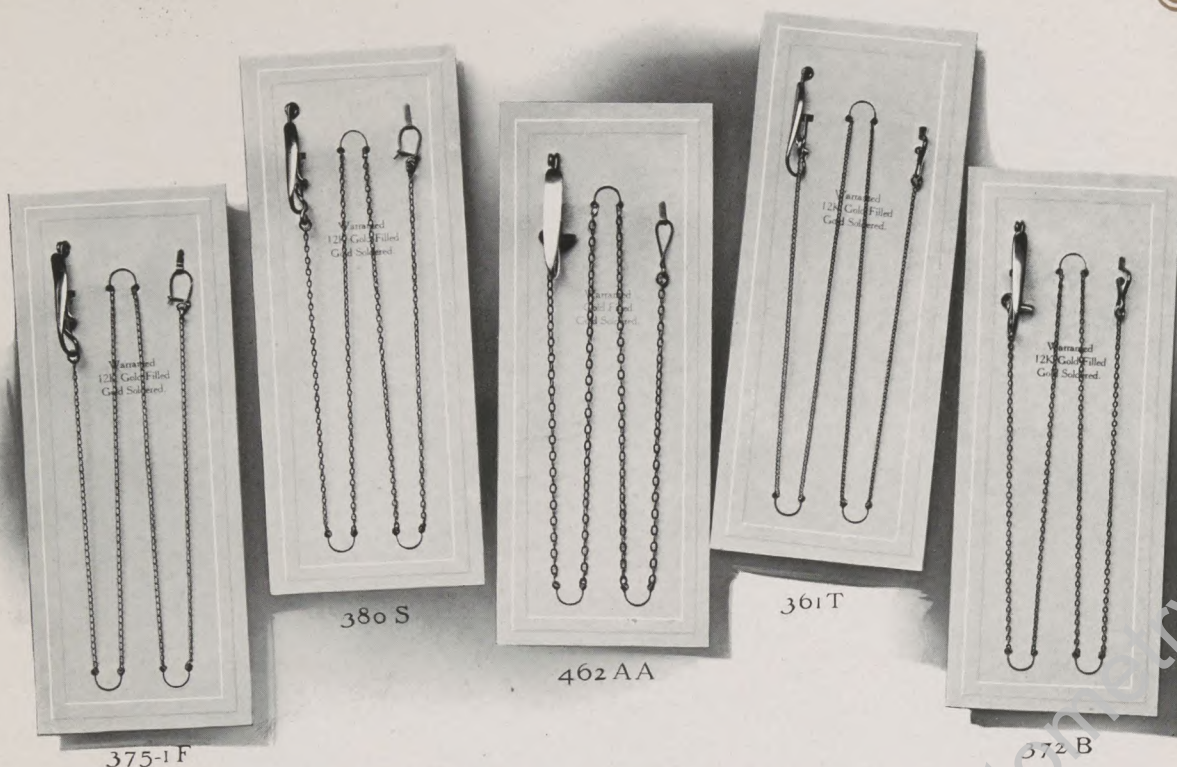
### GOLD-FILLED HAIRPIN CHAINS

Made in 10k Gold-filled. Gold-soldered

CATALOGUE NUMBER				DESCRIPTION				CATALOGUE NUMBER				DESCRIPTION			
Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Fancy Link	Links per 25.4 mm. (1 inch)	Fancy Link	Links per 25.4 mm. (1 inch)
460	-	461	-	462	-	16						513	-	-	12
470	-	471	-	472	-	12						514	-	-	7
												515	-	-	7
480	-	-	-	-	-	Foxtail									
490	-	491	-	492	-	9									
510	-	511	-	512	-	12									

Always specify style of Hairpin desired. See page 299.  
Regular Snaps furnished when other styles are not specified.





## GOLD-FILLED HOOK CHAINS

Made in 12k and 14k Gold-filled and Extra Quality 14k Gold-filled. Gold-soldered

CATALOGUE NUMBER				DESCRIPTION				CATALOGUE NUMBER				DESCRIPTION			
Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)
360	-	361	-	362	-	32	400	-	401	-	402	-	-	16	
365	-	365-1	-	365-2	-	30	410	-	411	-	412	-	-	12	
370	-	371	-	372	-	28	420	-	421	-	422	-	-	9	
375	-	375-1	-	375-2	-	20	430	-	431	-	432	-	-	7	
380	-	381	-	382	-	24	450	-	451	-	452	-	-	12	
385	-	385-1	-	385-2	-	20	500	-	501	-	502	-	-	20	
390	-	391	-	392	-	20									

## GOLD-FILLED HOOK CHAINS

Made in 10k Gold-filled. Gold-soldered

CATALOGUE NUMBER				DESCRIPTION				CATALOGUE NUMBER				DESCRIPTION			
Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Fancy Link	Links per 25.4 mm. (1 inch)	Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Cable Link	Curbed Link
460	-	461	-	462	-	16	513	-	12	470	-	471	-	472	-
470	-	471	-	472	-	12	514	-	7	480	-	481	-	482	-
480	-	481	-	482	-	Foxtail	515	-	7	490	-	491	-	492	-
490	-	491	-	492	-	9	520 (Links not soldered)	26		510	-	511	-	512	-
510	-	511	-	512	-	12									

Always specify style of Hook desired. See page 300.

Regular Snaps furnished when other styles are not specified.





### GOLD-FILLED EAR LOOP CHAINS

Made in 12k and 14k Gold-filled. Gold-soldered

CATALOGUE NUMBER				DESCRIPTION				CATALOGUE NUMBER				DESCRIPTION			
Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)
360	-	361	-	362	-	32		390	-	391	-	392	-	20	
365	-	365-1	-	365-2	-	30		400	-	401	-	402	-	16	
370	-	371	-	372	-	28		410	-	411	-	412	-	12	
375	-	375-1	-	375-2	-	26		420	-	421	-	422	-	9	
380	-	381	-	382	-	24		450	-	451	-	452	-	12	
385	-	385-1	-	385-2	-	20		500	-	501	-	502	-	20	

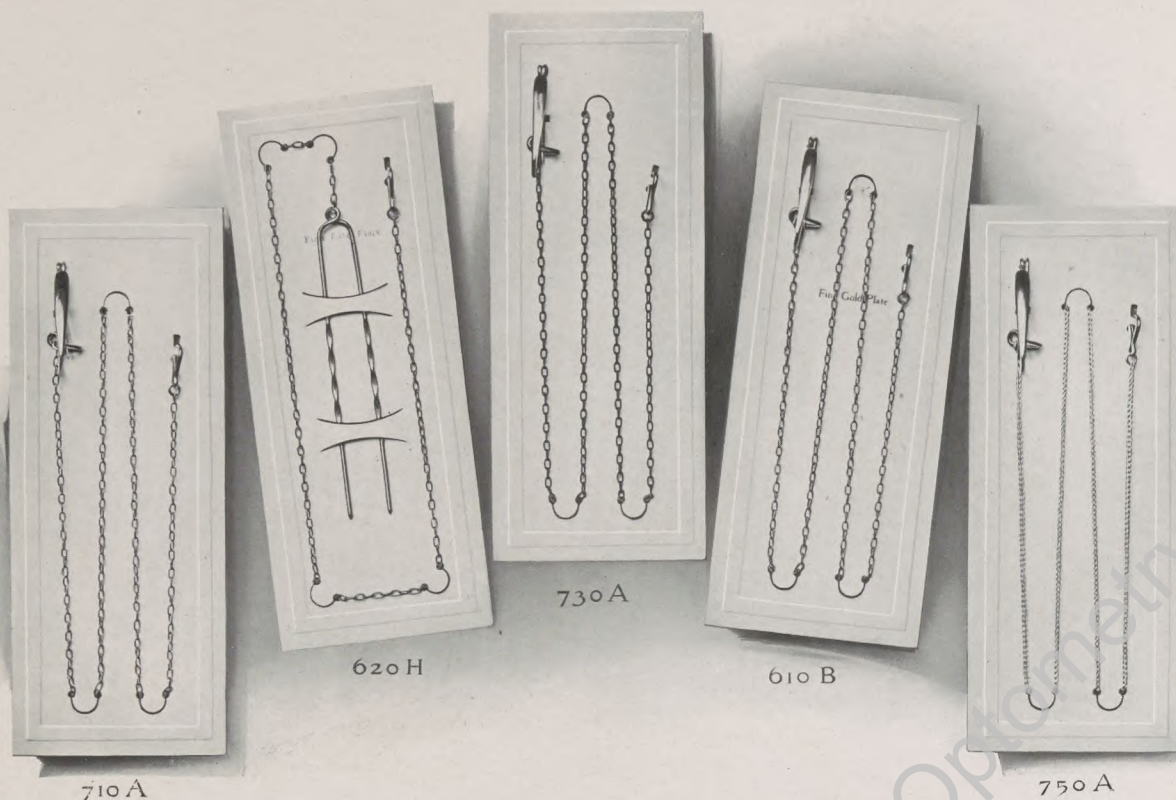
### GOLD-FILLED EAR LOOP CHAINS

Made in 10k Gold-filled. Gold-soldered

CATALOGUE NUMBER				DESCRIPTION				CATALOGUE NUMBER				DESCRIPTION			
Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)	Cable Link	Curbed Link	Flat Link	Links per 25.4 mm. (1 inch)
460	-	461	-	462	-	16		490	-	491	-	492	-	9	
470	-	471	-	472	-	12		510	-	511	-	512	-	12	
480	-	-	-	-	-	Foxtail		520	(Links not soldered)	-	-	-	-	26	

Always specify style of Ear Loop desired. See page 301.  
Figure 8 Snaps furnished when other styles are not specified.  
Cone or Ball Tips furnished instead of Ear Loops when so ordered.





## EYEGLOSS CHAINS

Other Metals

CATALOGUE NUMBER				DESCRIPTION			
Cable Link	Curbed Link	Flat Link	Quality	Style			
610	-	611	-	612	-	Extra Quality, Gold Plate	B Hook
620	-	621	-	622	-	Extra Quality, Gold Plate	H Hairpin
650	-	-	-	-	-	Extra Quality, Gold Plate	B Hook Foxtail Chain
660	-	661	-	662	-	Coin Silver	A Hook
670	-	671	-	672	-	Coin Silver	H Hairpin
710	-	711	-	712	-	Alumnico	A Hook
720	-	721	-	722	-	Alumnico	H Hairpin
730	-	731	-	732	-	Rubberoid	A Hook
730 H	-	731 H	-	732 H	-	Rubberoid	H Hairpin
750	-	-	-	-	-	Aluminum	A Hook Foxtail Chain
780	-	781	-	782	-	Gun Metal Finish	A Hook
790	-	791	-	792	-	Gun Metal Finish	H Hairpin

For styles of Hairpins, Hooks and Ear Loops, see pages 299, 300 and 301, respectively.





### SILK EYEGLASS CORDS

CATALOGUE NUMBER		DESCRIPTION	CATALOGUE NUMBER		DESCRIPTION
Medium	Light	Black Enamel, Regular or "77" Snap	Medium	Light	Gold-filled Lock Snap
810	-	S BE Hook	824	-	F Hook
811	-	K BE Hook	825	-	S Hook
812	-	Y BE Hook	826	-	H Hairpin
813	-	P 1 BE Hook	827	-	Y Hook
814	-	H BE Hairpin	834	-	GF Bead Slide
	820	17 BE Ear Loop			
		Gold-plated, Regular Snap			
822	-	B GP Hook	831	-	L (very light)
823	-	H GP Hairpin	831	-	(light)
					Gold-filled "77" Snap
					Ear Loop, any style
					Ear Loop, any style

No. 831 also furnished with medium and heavy cord, add  $\frac{1}{4}$  or  $\frac{1}{2}$  to catalogue number.

Nos. 810 to 814, inclusive, and Nos. 824 to 831, inclusive, furnished in heavy weight if so ordered.

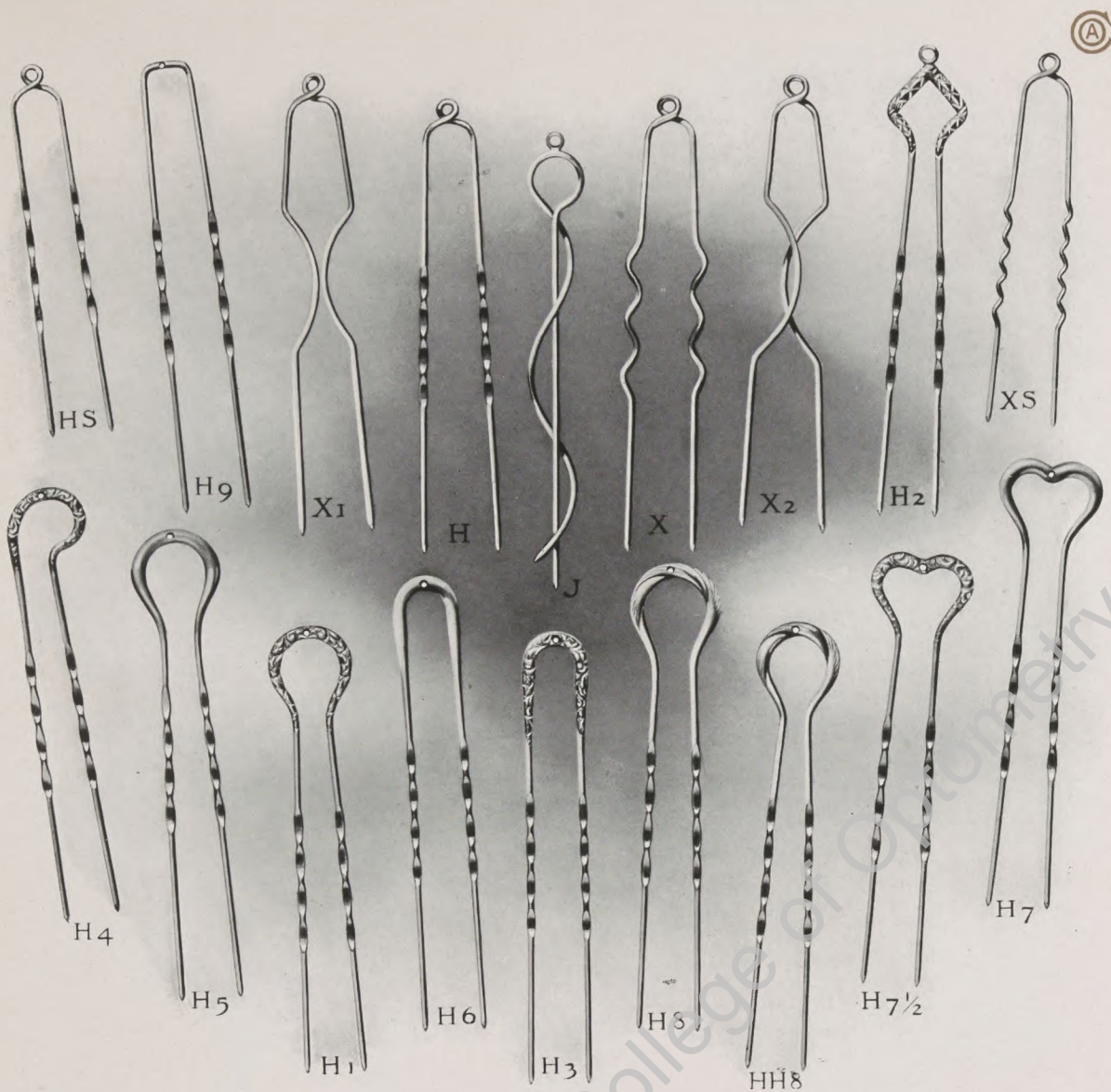
Nos. 810 to 820, inclusive, furnished in envelopes unless ordered on cards.

### SILK EYEGLASS CORDS ONLY

CATALOGUE NUMBER		DESCRIPTION	CATALOGUE NUMBER		DESCRIPTION
One Dozen in Bundle	Single Cords in Envelope	Weight	One Dozen in Bundle	Single Cords in Envelope	Weight
849	-	Very Light	852	-	Heavy
850	-	Light	857	-	Fish Line
851	-	Medium		865	"Varsity" Ribbon

Nos. 856, 853, 854, 855, 860 supplied one-half dozen in a folder when so ordered. See illustration, page 290.





HAIRPINS\*

Made in 8k, 10k and 14k Gold; 10k, 12k, 14k and Extra Quality 14k Gold-filled

CATALOGUE NUMBER	CATALOGUE NUMBER	CATALOGUE NUMBER
H	H 2	H 7 1/2
X	H 3	H 8
J	H 4	HH 8
HS	H 5	H 9
XS	H 6	X 1
H 1	H 7	X 2

Above Hairpins may be ordered on any style Chain in Gold and Gold-filled.  
In ordering Hairpin add catalogue number of Hairpin to catalogue number of Chain and state style of Snap wanted.  
\* Illustration shows Hairpins full size.





HOOKS\*

CATALOGUE NUMBER			STYLE			CATALOGUE NUMBER			STYLE			CATALOGUE NUMBER			STYLE		
Plain			Engraved			Plain			Engraved			Plain			Engraved		
AA	-	AAE	-	Extra Heavy		F	-	FE	-	Medium		Q	-	-	-	Flat Stock	
A	-	AE	-	Medium		F1	-	-	-	Narrow Face		R	-	-	-	Wire	
A1	-	A1E	-	Narrow Face		G	-	GE	-	Heavy		S	-	SE	-	Medium	
A2	-	-	-	Heavy		K	-	-	-	Flat Stock		S1	-	-	-	Narrow Face	
AP	-	-	-	Perforated		LE	-	-	-	Light		SV	-	-	-	Wire	
A-Pin	-	-	-	Medium		LY	-	-	-	Wire		T	-	TE	-	Medium	
B	-	BE	-	Light		M	-	-	-	Flat Stock		T1	-	-	-	Narrow Face	
B1	-	-	-	Narrow Face		O	-	OE	-	Medium		T-Pin	-	-	-	Medium	
C	-	CE	-	Heavy		O1	-	-	-	Narrow Face		U	-	UE	-	Medium	
D	-	DE	-	Medium		P	-	-	-	Pin		W (Patented)	-	-	-	Medium	
E	-	EE	-	Medium		P1	-	-	-	Wire		Y	-	-	-	Wire	

All above styles furnished in Gold and Gold-filled except K, M, P1, Q and Y Hooks.

The following styles furnished in Black Enamel finish (add BE to style number): A, A1, A2, F, K, LY, M, O, P1, Q, R, S, T and Y Hooks.

The following styles furnished in Rubberoid finish (add R to style number): A, A1, A2, F, O, S and T Hooks.

The following styles furnished in Nickel (add N to style number), or Gun Metal finish (GM): A, A1, A2, K, O, S and T Hooks.

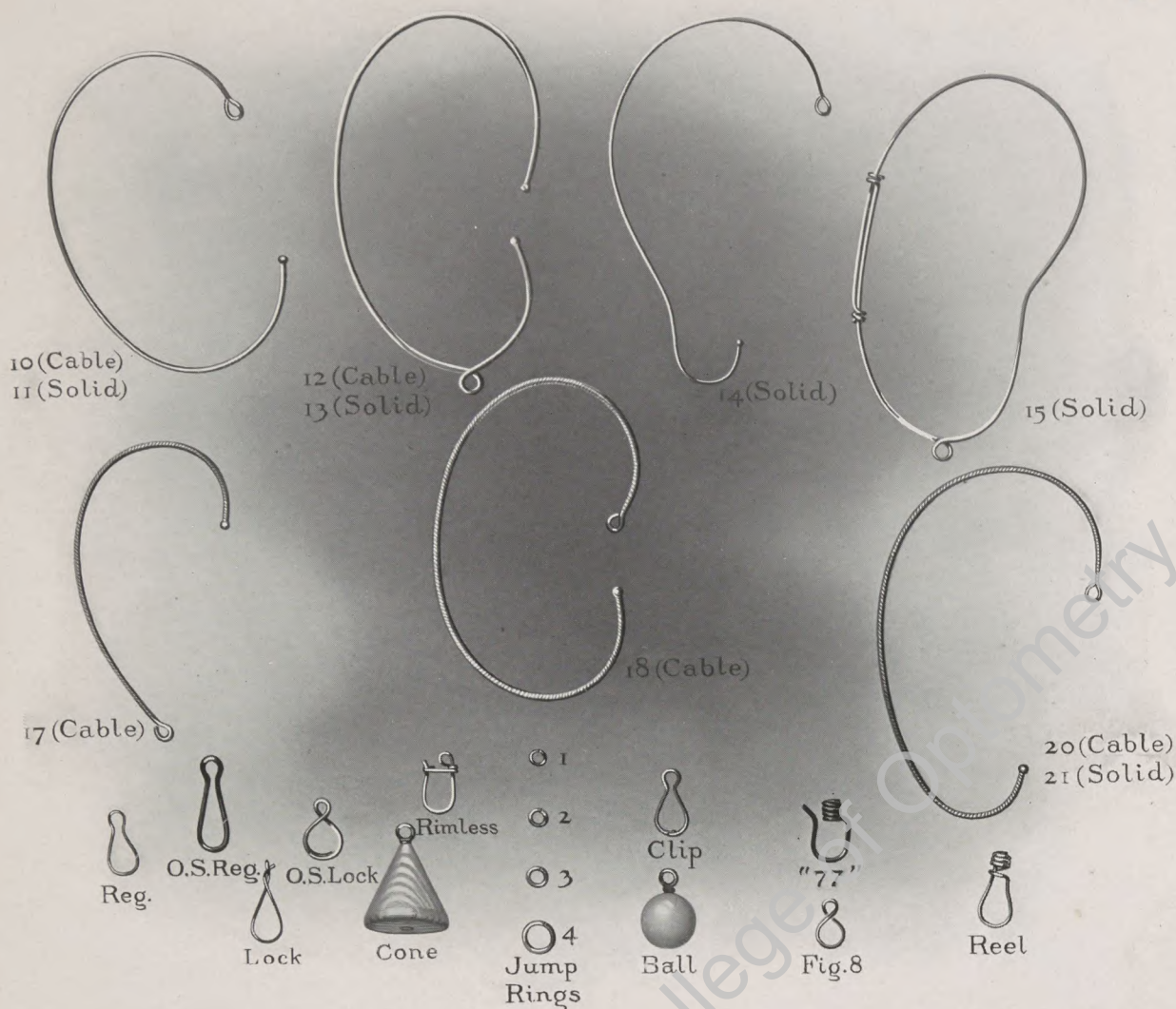
The following styles furnished in Gold Plate (add GP to style number): A, B and T Hooks.

Hooks only furnished one-half dozen on a card unless otherwise ordered.

In ordering Hook Chains add catalogue number of Hook to catalogue number of Chain and state style of Snap wanted.

\*Illustration shows Hooks full size.





## EAR LOOPS, SNAPS, ETC.\*

CATALOGUE NUMBER	DESCRIPTION	CATALOGUE NUMBER	DESCRIPTION
10	- - - - - Cable	15	- - - - - Solid Adjustable
11	- - - - - Solid	17	- - - - - Cable Hook
12	- - - - - Cable	18	- - - - - Cable
13	- - - - - Solid	20	- - - - - Cable
14	- - - - - Invisible	21	- - - - - Solid

All SNAPS, except O.S. Regular, furnished in Gold, Gold-filled, Black Enamel (BE), Rubberoid (R), Nickel (N), Gold-plated (GP), and Gun Metal Finish (GM). O.S. Regular Snaps furnished in BE and R finishes only. Snaps ordered separately are furnished one dozen in envelope unless otherwise ordered.

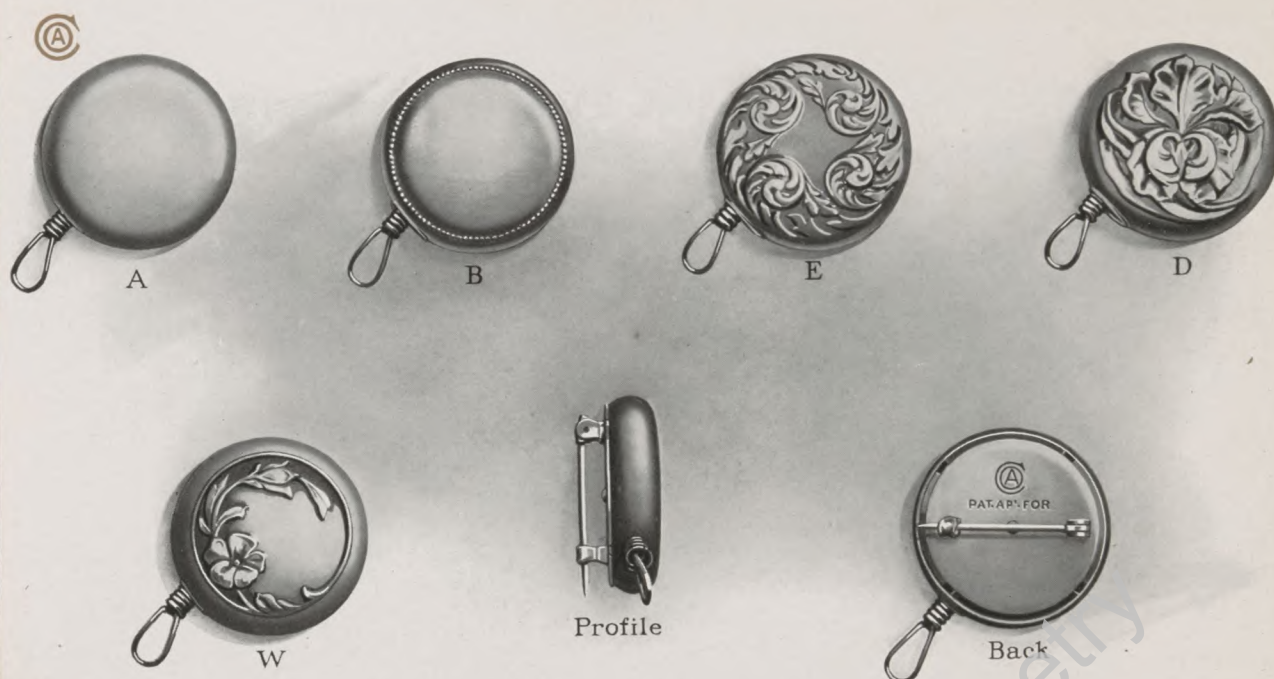
JUMP RINGS furnished in all metals and finishes.

CONE TIPS and BALLS made in White Celluloid only.

In ordering Ear Loop Chains, add catalogue number of Ear Loop to catalogue number of Chains and state style of Snap wanted.

\*Illustration shows Ear Loops, Snaps, etc., full size.





“AOCO” AUTOMATIC EYEGLASS HOLDERS.\*—PATENT APPLIED FOR

CATALOGUE NUMBER			DESCRIPTION		
			Front	Back	Chain
100	-	-	Black Enameled	Nickel	German Silver
101	-	-	Black Enameled	Nickel	Gilt
330	-	-	Gun Metal Finish	Black Nickel	German Silver
331	-	-	Gun Metal Finish	Black Nickel	Gilt
333	-	-	Gun Metal Finish	Black Nickel	Gun Metal Finish
551	-	-	Gold-plated	Gold-plated	Gilt
620	-	-	Coin Silver	Nickel	German Silver
751	-	-	Gold-filled	Gold-plated	Gilt
971	-	-	Gold, 10k	Gold-filled	Gilt

In ordering give catalogue number and letter denoting design, as: 351 W.

Black Enamel Holders supplied in A pattern only.

Gun Metal Finish Holders supplied in A and B patterns only.

Gold-plated, Coin Silver, Gold-filled and Gold Holders supplied in any patterns above illustrated.

In ordering any A and B styles, except White Celluloid or Gun Metal Finish, specify whether bright or dull finish is desired. Designs D, E and W supplied in dull finish only.

\*Illustration shows Eyeglass Holders slightly larger than full size; actual diameter 25 mm.

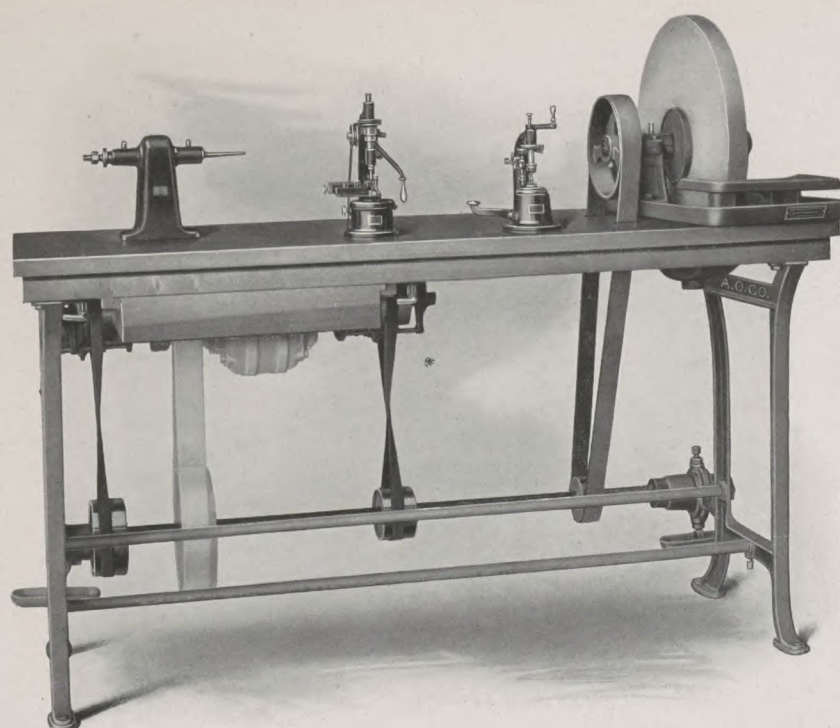
In several features the “AOCO” Automatic Eyeglass Holder presents definite advantages over types of holders now on the market.

1. It is smooth running with an easy, even tension, and so adjusted that the chain may be stopped at short intervals throughout its entire length when the holder is worn in any position.
2. It is easy to repair and adjust.
3. It is fully guaranteed by the manufacturers and therefore insures absolute satisfaction to the purchaser.
4. The rounded edge of the holder, as shown in the profile view above, gives a most attractive appearance to the outer case.

New patterns in these goods will be announced from time to time.

Length of chain, 43.3 cm. (17 inches).





## OPTICIANS' WORK BENCHES

## CATALOGUE NUMBER

## DESCRIPTION

- M 1 Opticians' Work Bench, complete as shown, regularly furnished without motor.  
 An extra charge is made for fitting M 1 Opticians' Work Bench with  $\frac{1}{2}$  horse-power, 110 or 220 volt, 60 cycle, single phase, alternating-current motor, self starting, including pulley on main shaft, belted ready for use.  
 If other type of motor is required give complete specifications.  
 An extra charge is made if above is required to be specially crated for foreign shipment.

## DIMENSIONS

Length 5 feet; width 2 feet 1 inch; height 2 feet 9 inches.

## REGULAR EQUIPMENT

- One (1) No. M 81 Corundum Hand Grindstone, see page 315.  
 One (1) No. M 92-b "Handy" Drilling Machine, with turned diamond, see pages 324 and 325  
 One (1) No. M 52 "Opticians' Favorite" Lens Cutting Machine (patented), see pages 320 and 321.  
 One (1) No. M 131 Polishing and Buffing Head, see page 331.  
 Two (2) No. M 11 Countershafts, one with flat faced and one with grooved pulley, see page 331.  
 Also necessary pulleys, shafting and belts.

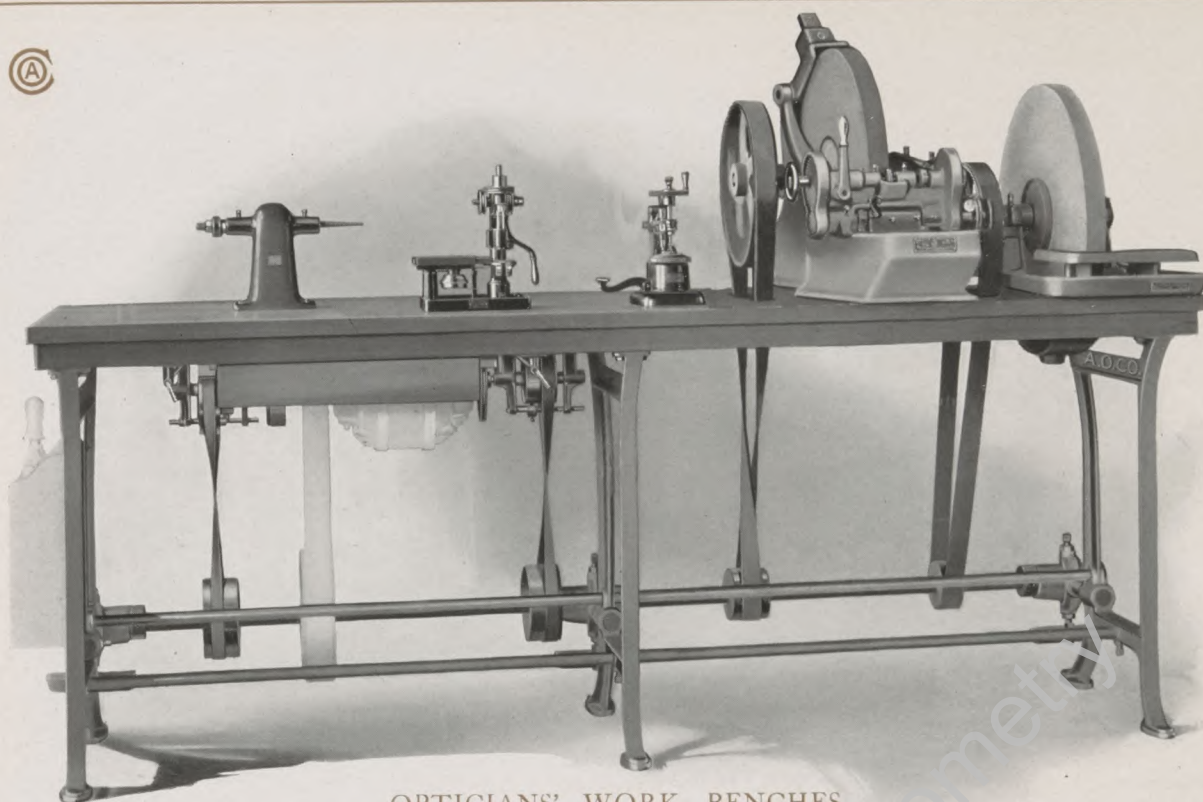
This is one of our newer outfits and is a splendid equipment of machinery at a reasonable cost. The bench top is made of selected seasoned hard wood glued in narrow strips to prevent warping. The cast-iron legs are tied together with rods acting as foot rest and belt guard, and insuring rigidity. A drawer is conveniently placed in position shown, for the accommodation of small tools and materials.

Drill and polishing head is belted to countershafts, controlled from front of bench. All machines except grindstone are so conveniently placed as to permit their use by workman without leaving his seat.

Motor ( $\frac{1}{2}$  horse-power) will be furnished when so ordered but is not included in regular equipment.

Prices on special AOCo work benches will be furnished by wholesalers upon receipt of specifications.





OPTICIANS' WORK BENCHES

## CATALOGUE NUMBER

## DESCRIPTION

- M 2    Factory Work Bench, complete as shown, regularly furnished without motor.  
 An extra charge is made for fitting M 2 Factory Work Bench with 1 horse-power, 110 or 220  
 volt, 60 cycle, single phase, alternating-current motor, self starting, including pulley on main  
 shaft, belted ready for use.  
 If other type of motor is required give complete specifications.  
 An extra charge is made if above is required to be specially crated for foreign shipment.

## DIMENSIONS

Length 7 feet; width 2 feet 1 inch; height 2 feet 9 inches.

## REGULAR EQUIPMENT

- One (1) No. M 72 AMERICAN Automatic Edging Machine (patent applied for), see page 316.  
 One (1) No. M 81 Corundum Hand Grindstone, see page 315.  
 One (1) No. M 91-b Factory Drilling Machine (patented), with turned diamond, see pages 322 and 323.  
 One (1) No. M 51 Factory Lens Cutting Machine (patented), see pages 318 and 319.  
 One (1) No. M 131 Polishing and Buffing Head, see page 331.  
 Two (2) No. M 11 Countershafts, one with flat-faced and one with grooved pulley, see page 331.

Also necessary pulleys, shafting and belts.

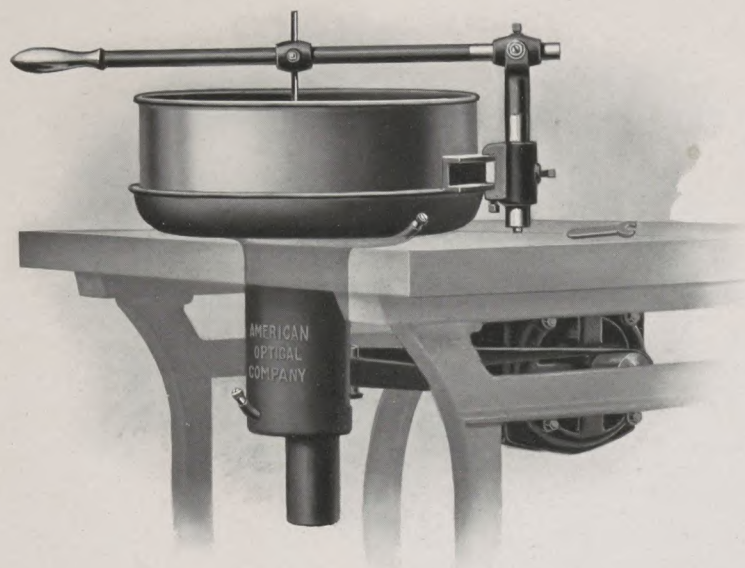
This outfit comprises an assembly of the best equipment that we manufacture. The top is made of selected hard wood, well seasoned and glued in narrow strips as a special precaution against warping. Three cast-iron legs support weight of top and equipment. They are strengthened by two rods, as will be noted in the illustration, insuring a strong, rigid bench. Rods also serve as foot rest and belt guard. Drawer is placed in position where it affords the greatest bench room for work.

All machines included in the equipment of this bench are types which have been successfully used in our own factories and are known to be thoroughly practical for the shop where Rx work must be dispatched quickly and accurately.

Motor (1 horse-power) will be furnished when so ordered but is not included in regular equipment.

Prices on special AOCo work benches will be furnished by wholesalers upon receipt of specifications.





## LENS SURFACE GRINDING MACHINERY

## CATALOGUE NUMBER

## DESCRIPTION

M 21 Bench Surface Grinder, with two pans, regularly furnished without motor or bench.

An extra charge is made for fitting M 21 Bench Surface Grinder to bench (price of bench not included) with driving pulley, belts and M 12, heavy countershaft for one or two speeds as ordered.

An extra charge is made for fitting to bench (price of bench not included) with  $\frac{1}{4}$  horse-power, 110 or 220 volt, 60 cycle, single phase, alternating-current motor, self starting, belted direct to machine.

If other type of motor is required give complete specifications.

An extra charge is made if above is required to be specially crated for foreign shipment.

When it is convenient to have surface grinding machinery on bench this machine will be found admirably adapted to the work, besides representing a saving in cost over the usual type of pedestal machine.

Power is applied from whatever source is most convenient, to the pulley below the bench top. This machine allows of several methods of power application, may be driven by being belted direct to an electric motor, as shown in the illustration, or may be driven from above or below by means of countershaft.

In the construction of this machine unusual precautions have been taken to prevent emery from getting into the bearings. This is done by providing a wide dust cap which fits over the bearings below pan. In addition a felt washer serves to close the bearings tighter. The upper end of spindle revolves in a phosphor-bronze bushing, which may be removed and replaced by another. The lower bearing is babbitt metal.

The end thrust on spindle when in use is taken up by ball bearings which run in oil. This feature insures smooth running under heavy pressure on grinding tool, with the least possible friction.

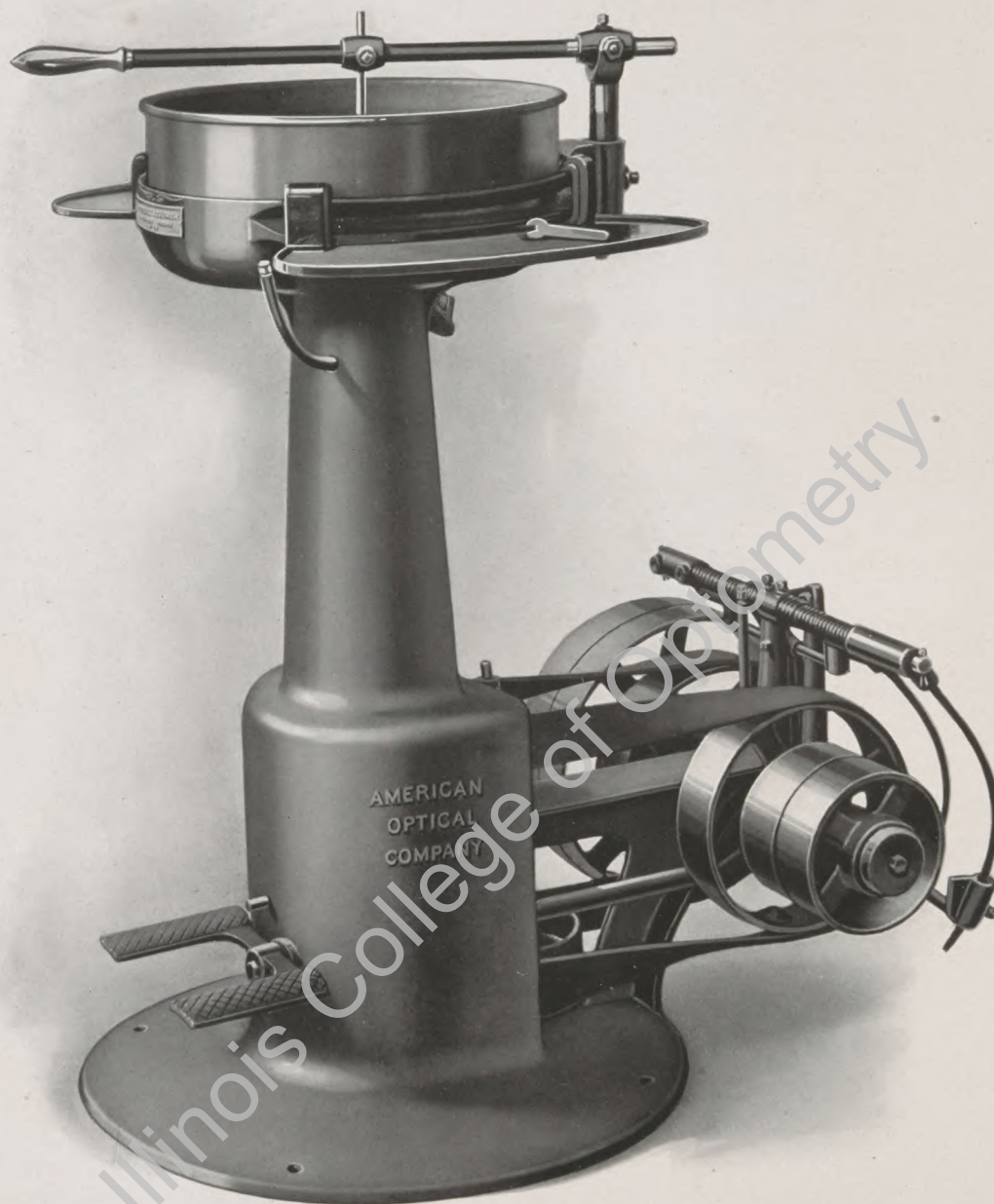
All castings and machined parts are substantially made to insure the longest life possible to the machine and to resist wear. Ample provision is made for oiling and cleaning parts, and with reasonable care this machine can be used many years.

Equipment includes two seamless pressed steel pans with heavy wired edge. Swivel which carries the arm is adjustable around rim of frame, to suit the convenience of operator. Arm may also be raised or lowered.

This machine will take any of our grinding tools and toric attachment. Cost of machine does not include bench.

For large Rx shops where a number of bench surface machines are necessary, wholesalers will supply special quotations on complete AOCO surfacing equipment, including bench, shafts, countershafts, pulleys, belts, etc.





No. M 24. Surface Grinder.  
See description on opposite page.



## LENS SURFACE GRINDING MACHINERY

## CATALOGUE NUMBER

## DESCRIPTION

- M 24 Surface Grinder, regularly furnished with two pans, crated.  
An extra charge is made if above is required to be specially crated for foreign shipment.

The feature of this machine is its powerful, rigid construction, which, together with its smoothness of operation, makes it possible for workman to force the rough grinding of lenses, effecting an important saving in time. As in our Bench Surface Grinder (see page 309) the same provision is made for excluding emery from bearings, and removable phosphor-bronze bushing is furnished, which can be easily replaced. Ball bearings, running in oil, take up the end thrust of spindle and insure the least possible friction under heavy pressure upon grinding disk.

The tool may be driven at two different speeds by shifting position of foot treadle. When treadle is in horizontal position spindle is stopped. Treadle is self locking in each instance. Driving pulleys may be belted from above or horizontally to shafting beneath a work bench. The larger pulleys should run at a speed of 400 and the smaller at 800 revolutions per minute, giving a spindle speed of 600 and 1200 revolutions per minute respectively.

Facilities are provided for oiling and keeping machine in condition and with ordinary care no difficulty need be experienced.

Equipment includes two seamless pressed steel pans reinforced with heavy wire rims. The position of the two removable shelves may be changed if desired. The swivel bracket which carries the lever arm is adjustable around upper rim of pedestal for changing angle of arm to suit the convenience of operator. The height of arm may also be regulated.

Floor space required, 2 feet wide by 3 feet deep.

See illustration on opposite page.







No. M 25. Electric Surface Grinder.  
See description on opposite page.



## LENS SURFACE GRINDING MACHINERY

## CATALOGUE NUMBER

## DESCRIPTION

- |      |   |
|------|---|
| M 25 | Electric Surface Grinder, for direct current, regularly furnished with two pans, crated.      |
| M 26 | Electric Surface Grinder, for alternating current, regularly furnished with two pans, crated. |
- An extra charge is made if above are required to be specially crated for foreign shipment.

This machine is complete in itself, requiring no pulleys or belting. It may be placed in any convenient position and wired to the nearest socket.

In operation machine is practically noiseless, the spindle being the only moving part. This feature should be noted and is particularly important where it is necessary to equip shops in which any undue noise is objectionable.

Being electrically driven, power is consumed only when machine is in actual operation. This means an important saving in operating expenses.

Power is furnished by an electric motor mounted on the lower end of grinding spindle. It is entirely enclosed within the casting, so there is no danger of dust or foreign particles getting into armature. Pressure on disk and weight of armature and spindle are carried on ball bearings which run in oil. Special dust caps and washers serve to prevent emery from getting into bearings. Upper bearing is phosphor-bronze, which is removable and may be readily replaced.

Two speeds are provided to drive spindle 600 and 1200 revolutions per minute. Throwing switch over to left starts motor on slow speed. Bringing switch over to right starts high speed. When switch arm is in the vertical position current is off. Switch is self locking in each instance. This two-speed feature will be appreciated at once by the operator.

Motor is capable of developing  $\frac{1}{3}$  horse-power, there being four types designed for a 115 or 230 volt direct and 110 or 220 volt alternating current. Wires are attached to rear of machine. Fuses are 6 ampere, and we recommend using this size.

Pedestal is detachable so that the upper unit, including motor, may be fitted in any regular work bench.

No difficulty need be experienced providing instructions regarding the oiling and care of machine are faithfully followed.

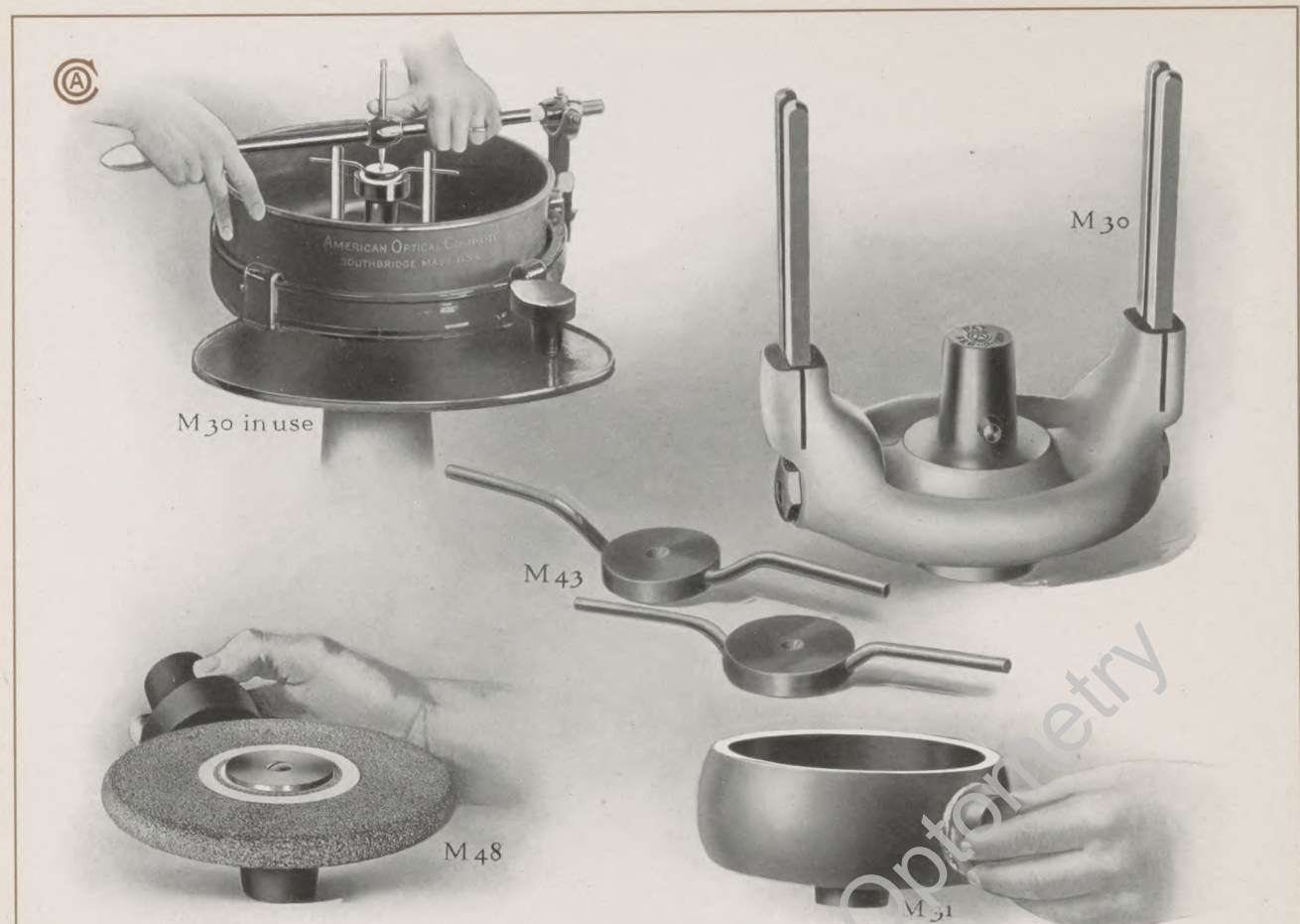
Equipment includes two seamless pressed steel pans reinforced with heavy wire rims, one each for grinding and polishing.

The position of the two adjustable shelves may be changed or they may be removed if desired. The swivel bracket which carries the lever arm is adjustable around rim of pedestal for changing direction of arm to most convenient angle.

We offer this machine as the most advanced type of apparatus for the hand grinding of lenses ever produced. In fact, all the surface grinding machinery here shown represents years of practical study by those who thoroughly understand the requirements of modern prescription shop work. Floor space required is slightly over two feet diameter. This machine is used exclusively in many of the largest prescription shops in the United States.

See illustration on opposite page.





# LENS SURFACE GRINDING MACHINERY

CATALOGUE NUMBER	DESCRIPTION
M 30	Patented Cylinder and Toric Attachment, for Surface Grinding Machines, complete with two Blanks.
M 31	†Special Tools, for rough surfacing of Toric curves prior to use of Cylinder and Toric Attachment.
M 48	Carborundum Toric Tool Grinding Wheel.

This device can be instantly attached to any of our surface grinding machines, and we believe it to be the simplest and most satisfactory of anything yet produced for grinding Cylinder, Cross Cylinder and Toric lenses.

The lens is cemented to the cast-iron blank the same as in ordinary surface work. This blank has two pins which extend into the guiding arms of the attachment and prevent its rotating on its own axis. This assures the axis of the lens being in proper position.

In grinding a cylinder, the workman proceeds to grind without any other preliminary work. In grinding Toric lenses, we recommend our M 31 Toric roughing-out tools, which are made to fit any of the spindles of AOCO grinding machines. The Toric surface of the tool is on its outer periphery, and with one of these tools it is possible to rough out the blank to the approximate curve so that the finishing can be quickly done on our M 30 Toric Attachment. These tools are furnished with convex grinding surfaces in the following curves: (base 6 D.) 6.50, 7.50, 8.50, 9.50, 10.50 and 11.50. Use tool nearest to curve wanted for roughing.

We will send an illustrated descriptive circular with full directions for operating upon request.

† See footnote, page 332.





### LENS EDGE GRINDING MACHINERY

#### CATALOGUE NUMBER

#### DESCRIPTION

M 80 Grindstone on legs, as illustrated.

M 81 Grindstone without legs, for bench use.

An extra charge is made for fitting M 80 Grindstone with  $\frac{1}{4}$  horse-power, 110 or 220 volt, 60 cycle, single phase, alternating-current motor, self starting, belted ready for use.

If other type of motor is required give complete specifications.

An extra charge is made if above are required to be specially crated for foreign shipment.

An extra charge is made for fitting to bench, including belt and pulley on main shaft.

An extra charge is made if above are ordered to be crated for foreign shipment.

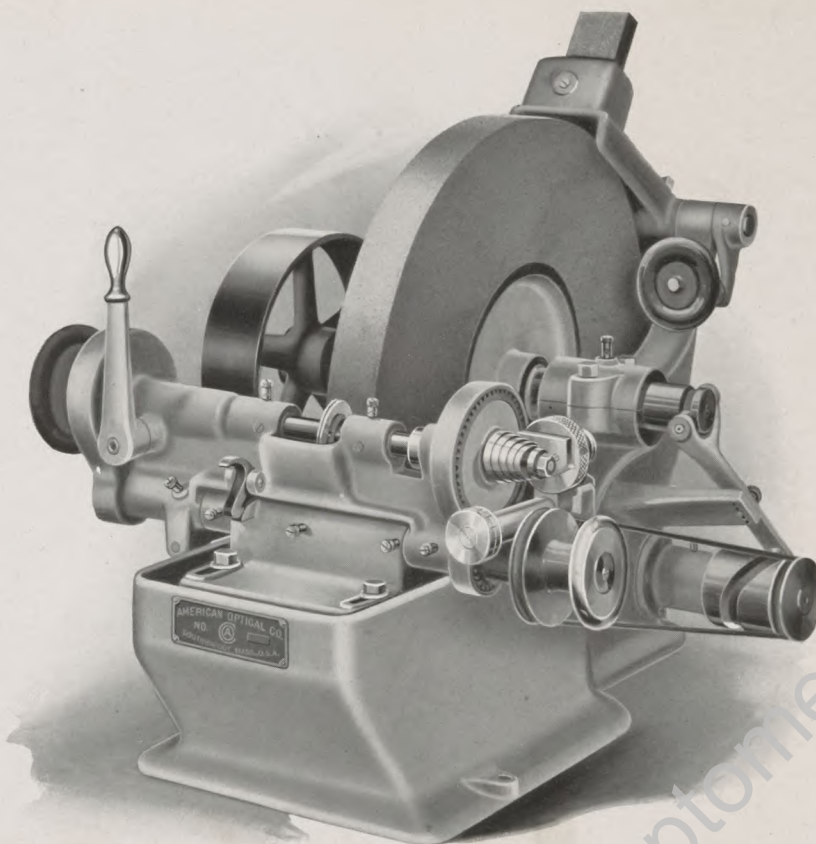
This is a special corundum grindstone, 20 x  $1\frac{1}{2}$  inches, mounted in tub having outlet for water, equipped with pulley, as illustrated.

As will be noted from above, we can also furnish this grindstone mounted on legs, with  $\frac{1}{4}$  horse-power electric motor, also without legs, for bench use.

The extra charge for setting on bench includes labor of cutting bench to take tub and belts.

Exceptional care is exercised in the selection of suitable stones for hand grinding to insure a perfectly homogeneous cutting surface.





### LENS EDGE GRINDING MACHINERY

#### CATALOGUE NUMBER

#### DESCRIPTION

- M 72 AMERICAN Automatic Frameless Edging Machine complete, without legs, for bench use, patent applied for.  
An extra charge is made if above is required to be specially crated for foreign shipment.

This machine has been designed to meet the exacting demands of modern prescription shop conditions in the edging of frameless lenses. In rapidity, accuracy, automatic and adjustment features it excels any machine previously offered.

To grind a lens, adjustment for shape can be made instantly. Two pairs of lenses can be edged as easily and as quickly as a single lens. Lenses are held between special universal pads which can be quickly drawn apart.

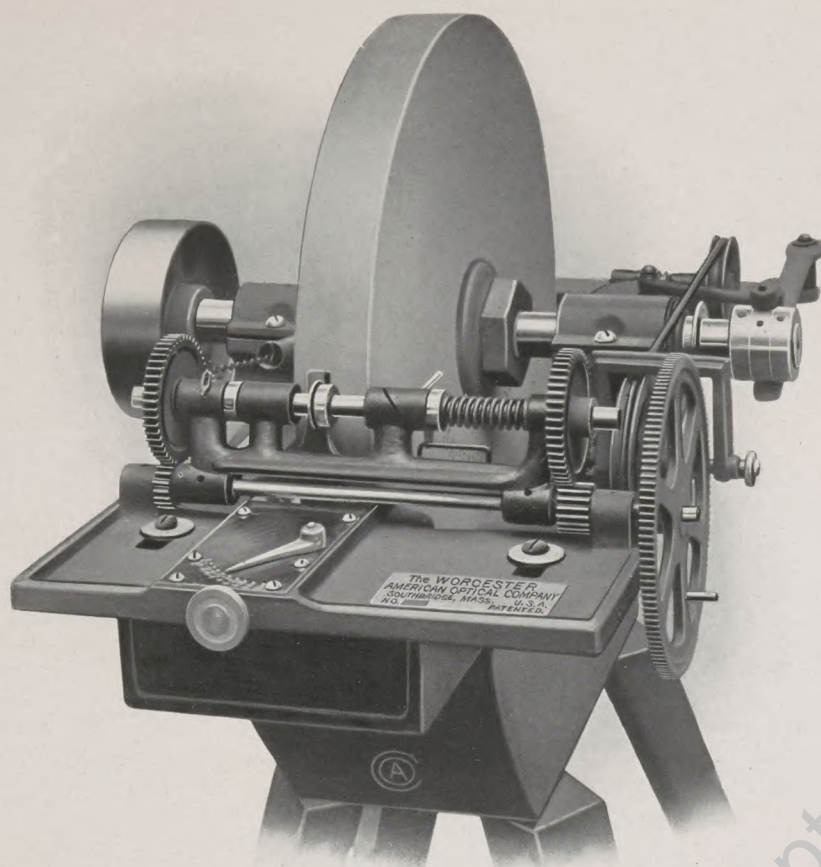
The desired size of lens is obtained by adjusting a micrometer head marked with the standard and millimeter sizes.

All lens patterns are affixed to the end of the spindle, and no changing of formers is necessary, except where irregular shaped eyes are required, for which a special former set is supplied. The adjustment for size and shape is effected independent of the lenses.

It is impossible to do good work on any edging machine when the face of the wheel is not in good condition, and this point has not been neglected. This machine is provided with a honing device constantly acting on the face of the stone in order to maintain a smooth cutting surface. This hone is so constructed that it will remove all unevenness in the surface, adjusting itself automatically. Stone is of corundum, 16 x 1 1/2 inches, and mounted on large bearings, which ensure long service without repairs.

A special lens holder is furnished with each machine in which the lenses can be properly centered and then placed between the pads. A water drip bucket (not shown) is a part of the regular equipment.





## LENS EDGE GRINDING MACHINERY

CATALOGUE NUMBER	DESCRIPTION
M 73	Worcester Automatic Frameless Edging Machine, with legs, patented.
M 74	Worcester Automatic Frameless Edging Machine, without legs, for bench use, patented.
	An extra charge is made if above are required to be specially crated for foreign shipment.

The AOCo Worcester Machine possesses many desirable features which particularly adapt it for prescription work in busy shops. Its principal feature is extreme simplicity in construction and operation. Its design is such that any wear on bearings in no way affects the shape of the lenses being ground.

Lenses are centered in a special spring-holding device in which they may be accurately set to axis before placing them between the chucks in the machine. The pattern is placed next to the lenses, thus at the same time precluding any possibility of grinding off axis. The lens-holding mechanism is kept under tension against the face of grindstone. This tension can be easily adjusted.

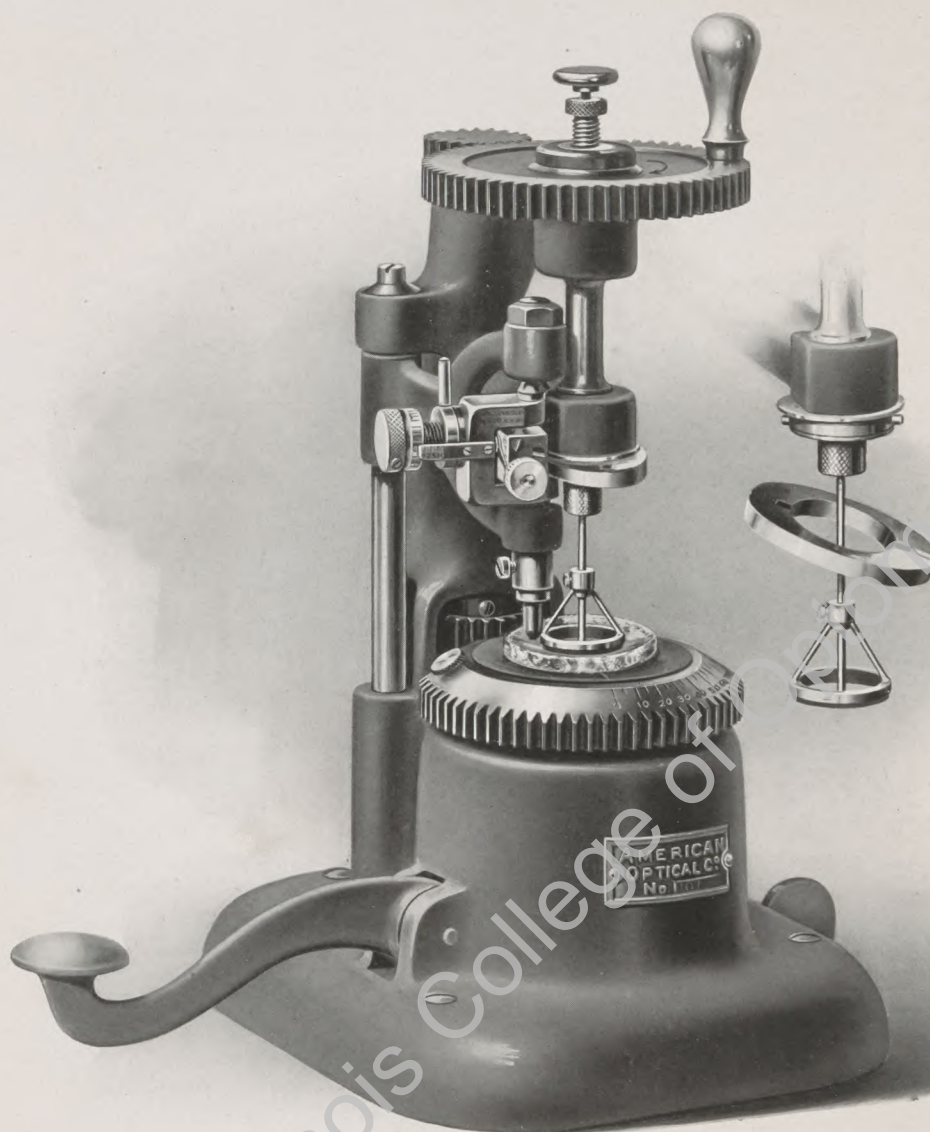
The Worcester Machine will grind lenses exactly the shape of pattern used, the size being set by an indicator on the forward shelf. It is merely necessary to turn the thumbscrew in front to get the exact length and width in millimeters. As many as six lenses may be ground at one time.

The grindstone is 18 inches in diameter with 2-inch face, and is made of a special grade of corundum, which we have found to be the best for lens grinding. The equipment includes a truing device for keeping the face of the stone in perfect condition.

Every Worcester Edging Machine is carefully inspected and tested before shipment.

Price of machine is the same, with or without legs, although the latter makes a difference in weight with corresponding reduction in freight charges.





No. M 51 Factory Lens Cutting Machine.  
Detail of removable pattern at right.  
See description on opposite page.



## LENS CUTTING MACHINERY

CATALOGUE NUMBER

DESCRIPTION

M 51    Factory Lens Cutting Machine, complete with diamond, patented.

This is a development of our former model Factory Lens Cutting Machine, which means that it represents the concrete result of many years of experience and the most severe test to which such machinery can be put, viz.: constant factory use.

**PATENTED DIAMOND HOLDER.** This device provides an adjustment to vary the shape of ovals so as to make a difference in mean and extreme diameter of 6, 7, 8, 9 or 10 mm. as well as a micrometer adjustment to determine size to which lens is to be cut. In short, it is possible to cut any full or narrow ovals without the necessity of changing patterns. A chart is furnished with this machine which explains the adjustments for cutting special shapes.

A change of patterns, however, is necessary when it is desired to cut round lenses or odd shapes. By a half turn of thumbscrew (see illustration), pattern may be instantly removed and replaced with another. We provide two patterns with each machine, viz.: oval and round.

Tension of diamond holder against pattern can be regulated from base of machine.

Pressure of lens holder upon the surface of lens may be regulated by thumbscrew at top of machine. Exerting pressure upon handle at left brings lens up into contact with diamond. Diamond remains stationary while lens is revolved.

Diamond is set to cut Pcx., Pcc. and Sphero Cylinder lenses of surface curvature up to about 6 dioptries. For stronger convex, such as Meniscus, Toric or Coquille, or strong Concave lenses it is necessary to provide *extra diamonds*. In ordering, state kind of lenses it is intended to cut.

Without reserve we pronounce this the best Lens Cutting Machine for opticians' use.

We will send full detailed description with directions for operating upon request.

See illustration on opposite page.





No. M 52. Opticians' Favorite Lens Cutting Machine  
Attachment for cutting round lenses, in foreground.  
See description on opposite page.



## LENS CUTTING MACHINERY

CATALOGUE NUMBER

DESCRIPTION

M 52    Opticians' Favorite Lens Cutting Machine, with diamond, patented.

In this machine, the diamond holder embodies all the features of the patented holder used upon our No. M 51 Lens Cutting Machine, providing two important adjustments to determine shape of eye and size to be cut. A special chart which is furnished will be found of assistance in cutting any of the special shapes. To cut round lenses a little steel plate (in foreground of illustration), is fitted into diamond holder. This operates against the round sleeve above pattern. By an adjustment of micrometer head it is possible to cut any desired sizes.

Unlike our Factory Lens Cutting Machine, the lens is held stationary while diamond revolves. Some opticians prefer this method of cutting.

Center rod carries a tripod with rubber pad at base which securely holds lens in position when table is raised in contact with diamond.

The diamond holder is held against the pattern by spring tension; and by means of a connecting lever, which operates on a form like the lens pattern, a uniform pressure is obtained. This assures a very even motion to the diamond, as there is no tendency to jump over the high points on the pattern, and consequently you obtain a better cut on the glass, and the life of the diamond is prolonged. The spring tension is easily regulated by means of a thumbscrew in the lever carrying the diamond holder.

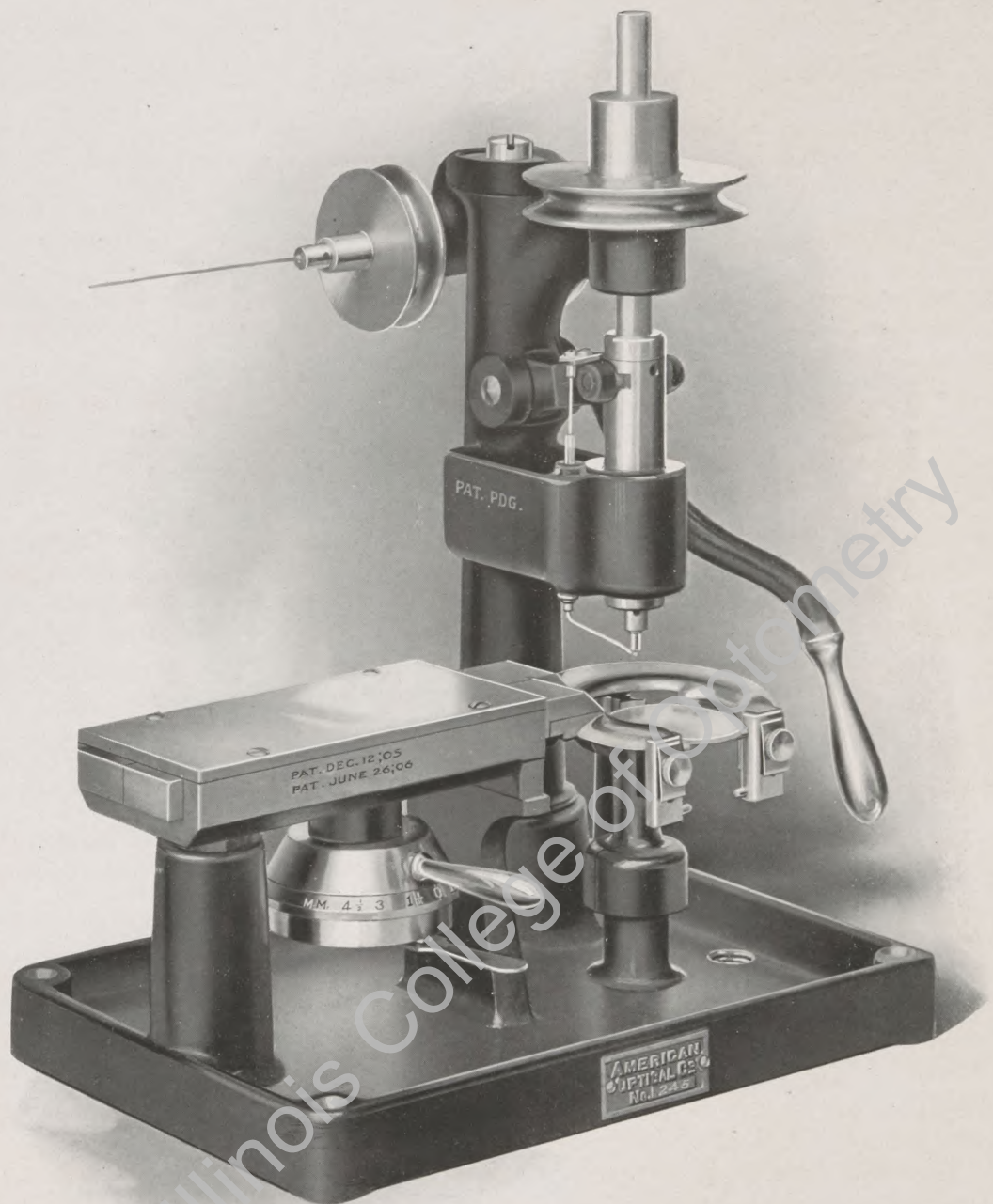
These machines are thoroughly tested and adjusted before leaving the factory, and will need adjusting only when diamond is re-set.

All diamonds for this work are mounted in stems which are interchangeable and which cannot be inserted in any but the proper position. In ordering state kind of lenses diamond is to be used upon (see page 305).

We will send an illustrated descriptive circular with directions for operating upon request.

See illustration on opposite page.





No. M 91-b. Factory Drilling Machine.  
See description on opposite page.



## LENS DRILLING MACHINERY

## CATALOGUE NUMBER

## DESCRIPTION

- M 91 Factory Drilling Machine, with steel drill.  
 M 91-a Factory Drilling Machine, with splint diamond drill.  
 M 91-b Factory Drilling Machine, with turned diamond drill.  
 An extra charge is made for attaching to bench, including M 11 countershaft, belts and pulleys.

Patented.

Realizing the weak points in many of the lens drilling machines that have been placed on the market, we have endeavored to overcome these, and at the same time offer new features never before embodied in this line of optical machinery.

In drilling lenses the melange becomes charged with small particles of glass, and these work into the slides and other moving parts, causing them to soon wear out. This machine is so designed as to keep the melange from the slides and important parts of the machine, and at the same time has a lens holder which is very accurate and convenient to operate.

The jaws which hold the lens are opened by means of the small lever directly underneath the slides. The graduated head to which the lever is attached indicates the position of the hole in regard to the center of the lens. By depressing the lower spring lever the lower half of the head may be revolved, making it possible to drill from 4.5 mm. above to 4.5 mm. below center.

The lens holder swings so that the edge of the lens is brought into contact with the adjustable stop, which is directly back of the center of the drill. This stop is pivoted so that it accommodates itself to the curve of the lens whether drilling on line, above or below, and insures the drilled hole always being the correct distance from edge of lens. When drilling lenses of regular curvature the slides at the ends of lens-holding jaws may be down, allowing the lens to lie in a horizontal position.

To drill a Toric or Meniscus lens these slides may be raised as high as possible, allowing the lens to be placed in the holder in such a position that the drill will always enter at right angles to the surface of the lens.

A feature to which we wish to call special attention, and one that will be readily appreciated by those having had experience in drilling, is the method of applying melange to the cutting point of the drill. At the left of the spindle is placed a reservoir for melange in which there is a spring valve operated by the spindle of the drill when it is brought down in the operation of drilling. Any desired amount of melange can be obtained at each movement of the spindle. With this attachment, it is no longer necessary to apply the melange by hand.

All drills for this machine are fitted with taper shanks, which assures their running true, an absolute necessity for accurate work. An adjustable stop is provided so that any depth of hole can be readily obtained. The driving pulley is arranged to run on a sleeve, which takes all belt strain from the spindle.

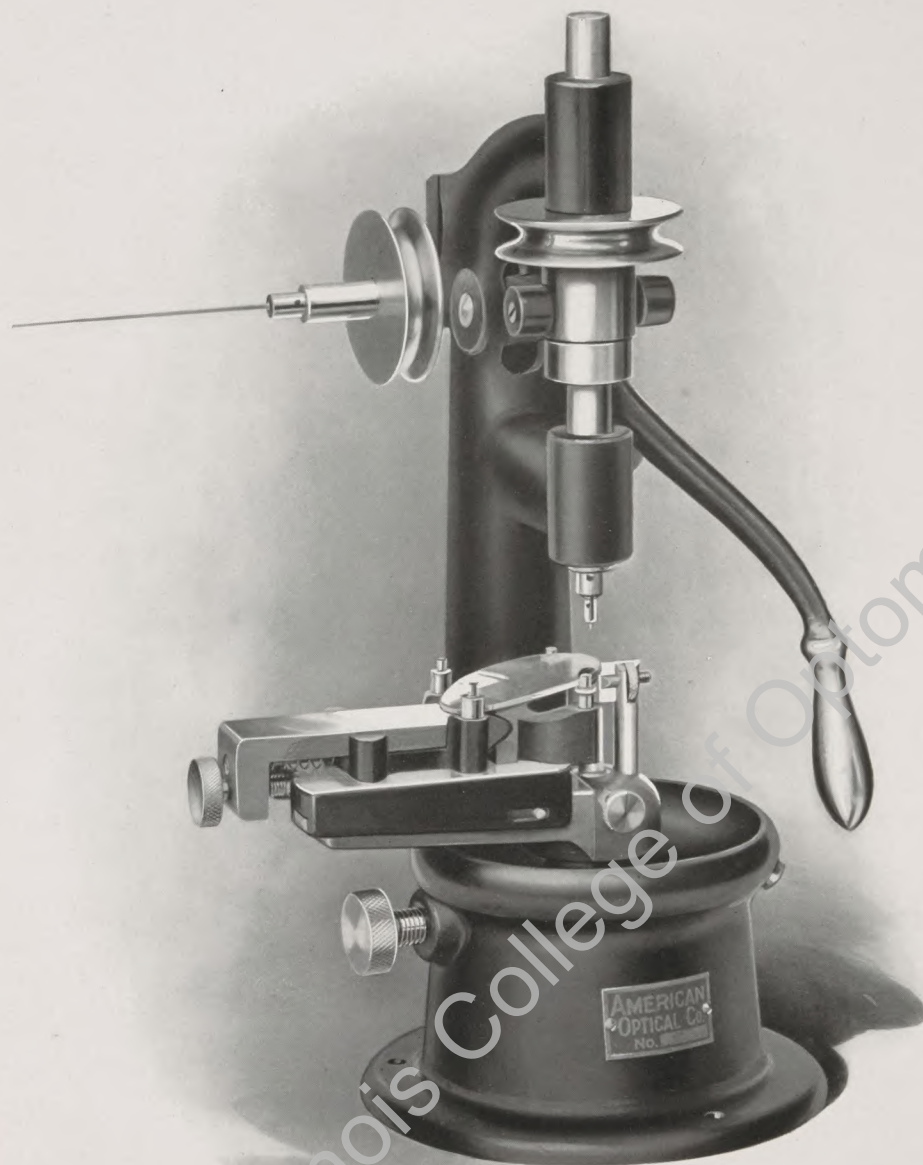
The idler pulleys, which allow of belting machine from above or below, also drive a spindle provided with taper holes. This can be utilized to carry a broach, or tool for rounding off the ends of glass screws.

Our factory machine is built in the most thorough manner, and we guarantee it to do accurate work.

We will send an illustrated descriptive circular, with directions for operating, upon request.

See illustration on opposite page.





No. M 92-b. Handy Drilling Machine.  
See description on opposite page.



## LENS DRILLING MACHINERY

## CATALOGUE NUMBER

## DESCRIPTION

- M 92 Handy Drilling Machine, with steel drill.  
 M 92-a Handy Drilling Machine, with splint diamond drill.  
 M 92-b Handy Drilling Machine, with turned diamond drill.  
 An extra charge is made for attaching to bench, including M 11 countershaft, belts and pulleys.

This lens drilling machine has been designed to meet all conditions which may present themselves in daily Rx shop practice.

Any lens to be drilled correctly must be properly centered, and held in a rigid manner. The lens holder furnished with this machine is of simple construction, yet very efficient. It is mounted on a round stem, thus making it possible to elevate it to accommodate different lengths of drills, and to turn it at any angle to suit the operator. All parts can be readily removed for cleaning.

To drill a lens of regular curvature operator places lens between the four centering pins, letting it rest on the slides of the machine, then moves the slides forward until the edge of the lens strikes the adjustable stop, which is arranged to locate easily and quickly the distance of the hole from the edge of the lens.

If a support under the drill is necessary, center pin may be released by turning the small thumbscrew, and the spring under the pin will bring it into contact with the lens. The pin is then clamped in this position.

Toric lenses may be drilled in a similar manner, but instead of placing them flat upon the slides, they are placed one end on the projections on the centering pins as in the illustration. The operator will readily see the proper position the lens should take as with this holder it is possible to drill the holes at right angles to the surface of the lens at the point of drilling. The adjustable center pin will be found of great assistance in this class of work.

The holder can be readily swung to one side to drill above and below center.

This machine is arranged to take our regular drills and broaches mounted in taper shanks.

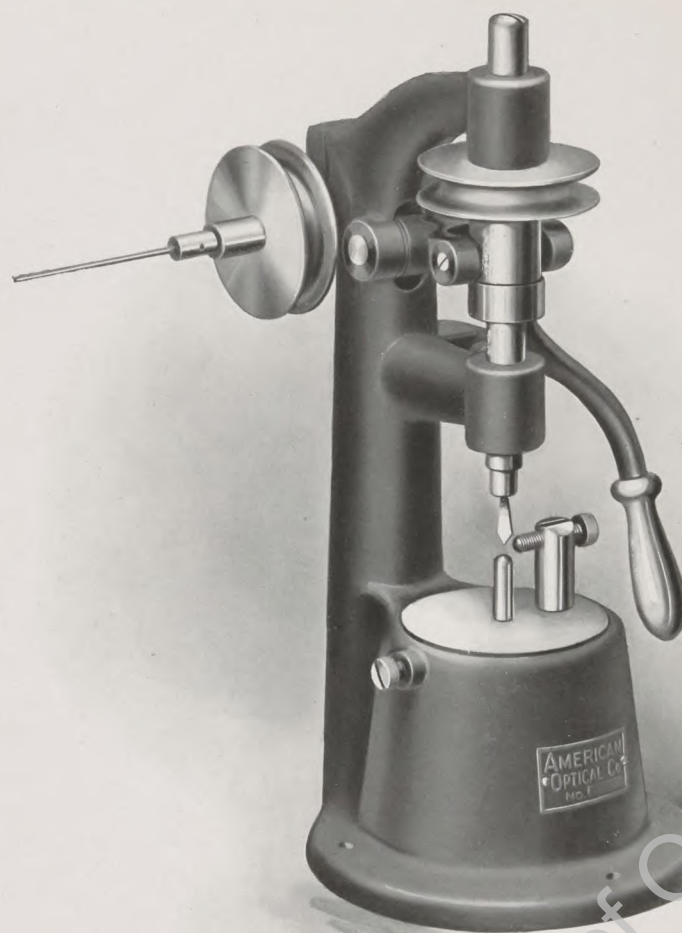
The frame is so designed that all the melange which drops from the lens is collected in the cup at the base of the holder, thus preventing its spreading on the bench.

Pulleys are so mounted that the machine can be belted from any direction.

The workmanship is of the highest order, and we guarantee that this machine will do accurate work.

See illustration on opposite page.





### LENS DRILLING MACHINERY

#### CATALOGUE NUMBER

#### DESCRIPTION

- |        |   |
|--------|---|
| M 93   | Simplex Drilling Machine, with steel drill.   |
| M 93-a | Simplex Drilling Machine, with splint diamond drill.  |
| M 93-b | Simplex Drilling Machine, with turned diamond drill.  |
|        | An extra charge is made for attaching to bench, including M 11 countershaft, belts and pulleys. |

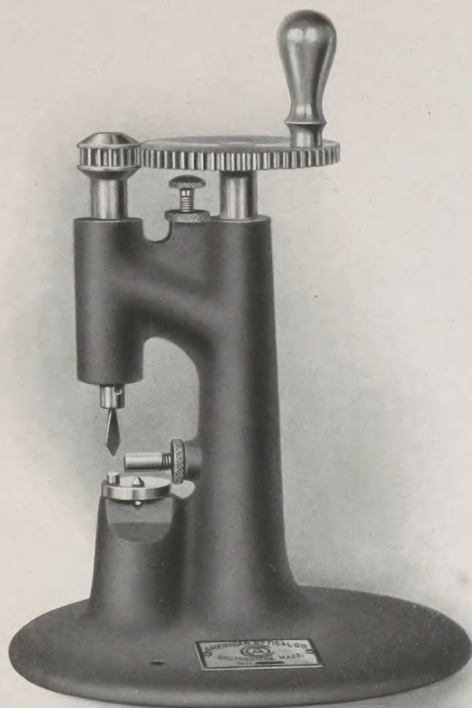
To meet the demand for a first-class, low-priced power driven lens drill we offer the Simplex. The workmanship and finish on this drill are of the same high grade as on all our other tools.

The machine is arranged to take our regular steel and diamond drills, and the idler shaft at the back will hold broach or rounding tool. The idler pulleys are so attached that the machine can be belted from any direction. A positive stop with screw adjustment is so placed as to prevent the drill going below any desired point.

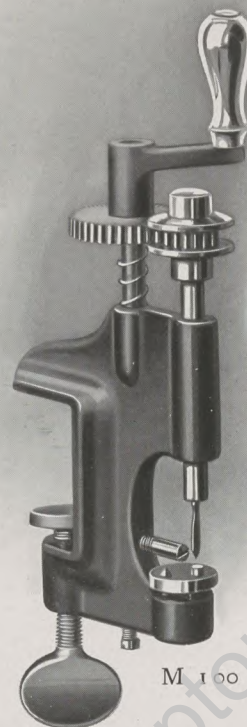
The lens is supported on a steel pin directly under the drill. This can be readily raised and lowered, and is of proper length to allow of drilling all forms and sizes of lenses.

An adjustable stop is placed at the proper distance from the drill to determine accurately the distance the hole should be from the edge of the lens. For speed of drills see page 305.





M 99



M 100

## LENS DRILLING MACHINERY

## CATALOGUE NUMBER

## DESCRIPTION

- M 99 Hand Drilling Machine, with steel drill.  
 M 99-a Hand Drilling Machine, with splint diamond drill.  
 M 99-b Hand Drilling Machine, with turned diamond drill.

This machine may be attached to bench, wide base giving it additional stability. It will be found absolutely satisfactory for small shops where only occasional drilling is necessary. Spindle will take any of our diamond drills. As with our No. M 100 Hand Drilling Machine, there is provided a flat rest for drilling first side of lenses and pointed rest which may be turned into position to drill opposite side.

An adjustable stop is provided to determine distance of hole from edge of lens.

- M 100 Hand Drilling Machine, vise attachment, with steel drill.

This machine will perform good and accurate work. It may be fastened to work bench and readily removed when not in use. It is furnished with steel drill and has an adjustable stop to determine distance of hole from edge of lens. Flat lens rest may be set for drilling first side of lenses after which pointed rest may be turned into position to drill opposite side.





LENS CENTERING DEVICE

CATALOGUE NUMBER

DESCRIPTION

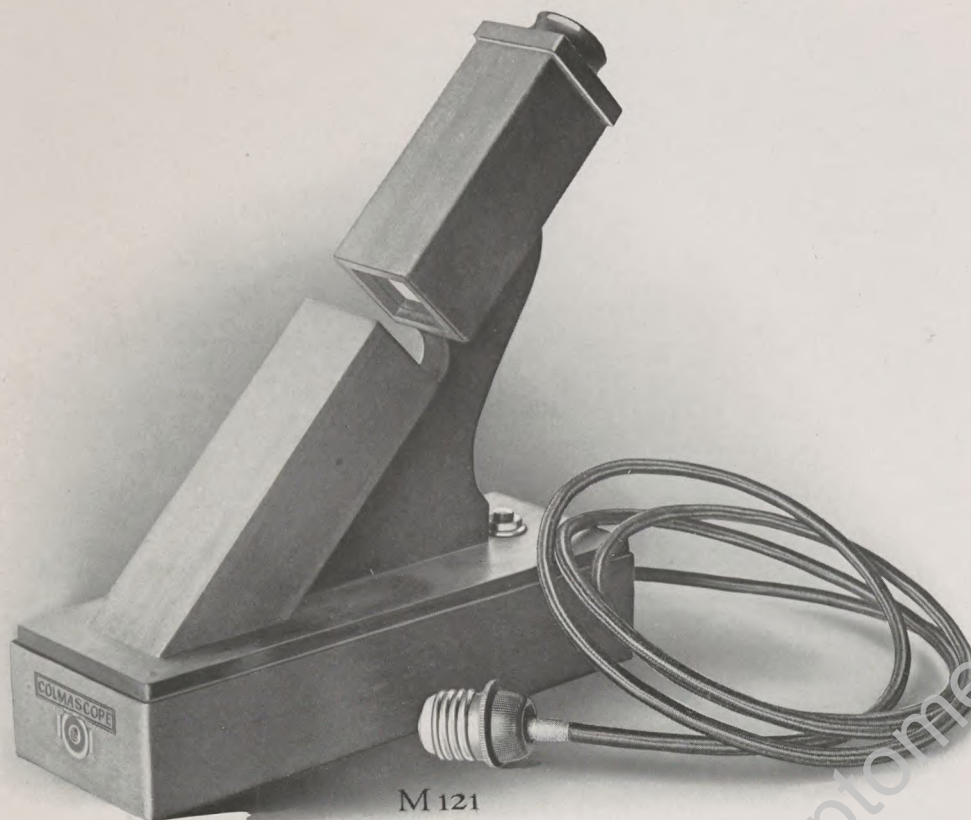
M 112 Lens Centering Device.

To provide a device at a reasonable price with which to center lenses, we offer the above as a most useful appliance for busy shops. Lens to be centered is held against hard rubber points of upright fork and center is sighted through pin hole in forward arm. When center of lens is over intersection of principal cross lines, the lens may be "dotted" with ink. For strong lenses there is provided a means of sliding the target forward within the focal distance. The rod supporting target is marked at the proper distance where target should be placed when decentering for prismatic power. At this point the principal vertical lines of the target represent power in prism dioptres.

Device may be tilted to any desired angle to suit the convenience of workman. Wide base is provided to give stability if not convenient or desirable to attach to bench.

We prepare special ink for centering and axis marking, see No. M 320, page 338.





M 121

## THE COLMASCOPE

Trade Mark Registered, U. S. Pat. Off.

CATALOGUE NUMBER

DESCRIPTION

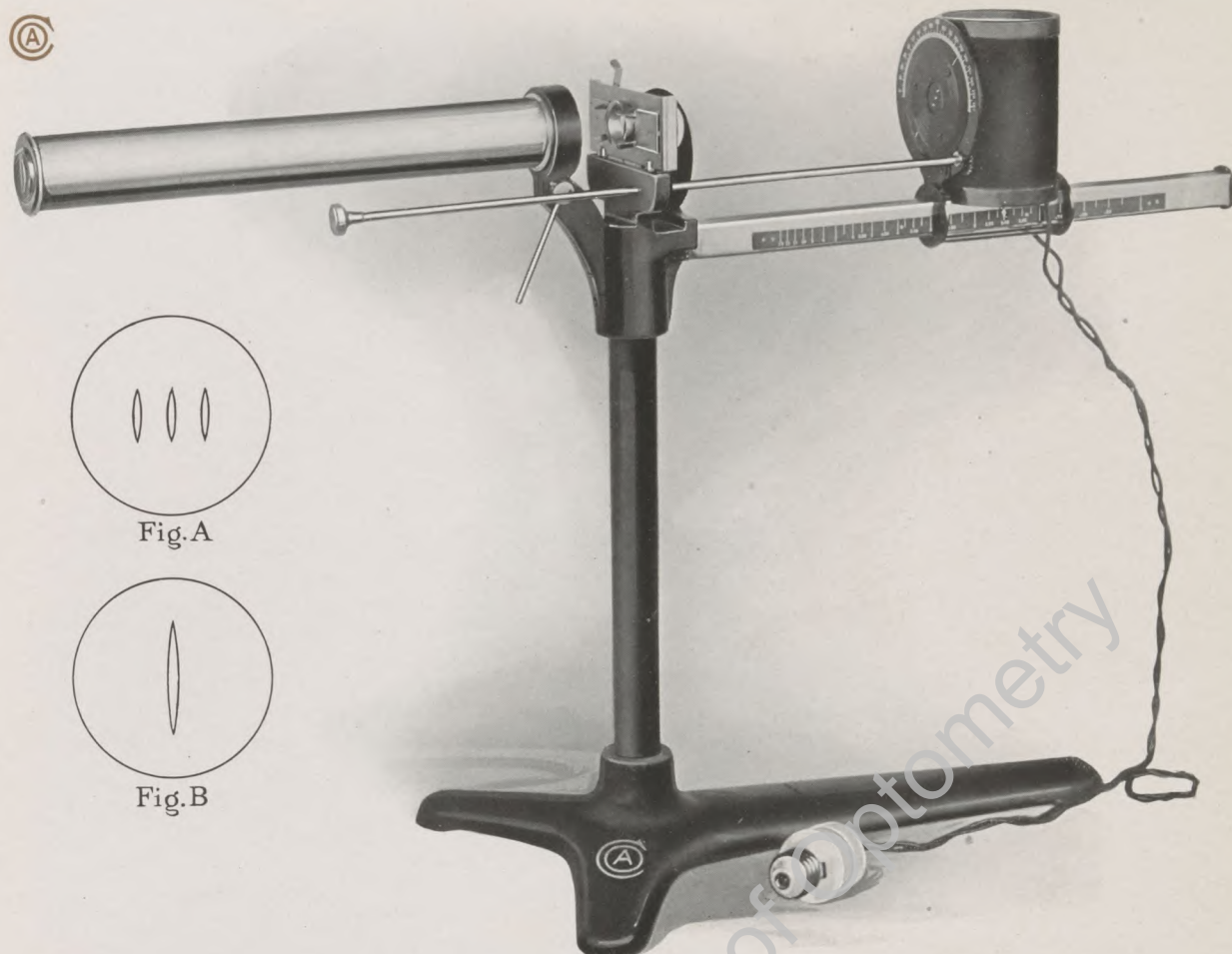
M 121 Colmascope, patented; other patents pending.

The Colmascope, by virtue of the practical application of certain known laws of light, will give to the observer an exact knowledge of the strain or absence of strain in any lens under observation. Take, for instance, the average rimless job you deliver. Frequently such a job is sent by mail and received by the customer broken, notwithstanding careful packing and having been apparently in perfect condition when mailed. The annoyance and the loss which in practically every instance is suffered by the consignor represents a considerable item in the year's business.

Hitherto there has been no practical means of testing lenses for strain after being mounted ready to wear. It was for this purpose we devised the Colmascope which is so simple in its use and so effective in what it shows as to be invaluable to all opticians. This instrument is thoroughly scientific in its principles of light control and with it the stress or strain is brought out clearly, whether caused mechanically by a tightly driven screw or physically by defective annealing.

The Colmascope is wonderfully effective as a money saver and its cost is so reasonable as to bring it well within reach of those who might only have occasional use for such an instrument. It is handsomely constructed in mahogany and its appearance would enhance the furnishings of any store or office.





## THE AXOMETER

CATALOGUE NUMBER

DESCRIPTION

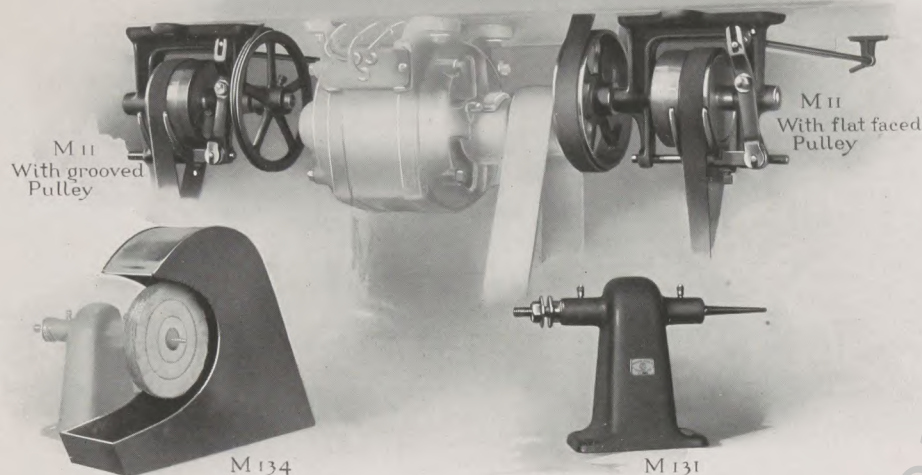
M 115 Axometer, patented.

The AOC Co. No. M 115 Axometer presents an entirely novel principle in lens-testing. With it one may obtain an accurate check on all prescription work, verifying any job, whether it involves Spheres, Cylinders or Sphero Cylinders. It absolutely determines the focus of sphere and cylinder, and gives the axis *within one degree*.

With the determining of the axis the operator of the Axometer simultaneously obtains the focus, so that one operation furnishes a complete check on any finished prescription. It makes no difference whether the lens is a Sphere, Cylinder, or Sphero Cylinder, Flat or Toric, or combined with a Prism. Both axis and focus are determined by a method radically different from the ordinary axis-marker.

The lens to be tested, whether mounted or unmounted, is held exactly in the center of a special, patented holding device and placed in front of the telescope. Three images are projected through this lens and brought to a sharp focus upon a ground glass (Fig. A). By revolving the diaphragm these three images are dissolved into one (Fig. B). Both axis and focus are correctly indicated upon their respective scales. The operation of the instrument is so simple that the most inexperienced person can obtain perfect results, the axis being located within one degree. Illumination is supplied by an electric bulb within an asbestos chimney. The instrument may be connected to any nearby lamp socket.





## MISCELLANEOUS EQUIPMENT

## CATALOGUE NUMBER

## DESCRIPTION

M 131 Polishing and Buffing Head.

An extra charge is made for attaching to bench, including M 11 countershaft, belts and pulleys.

This machine is of an improved design recently introduced by us. Pulley of spindle shaft is enclosed within casting so that there is no danger of work becoming entangled with belt. General design and construction of machine is well shown in illustration. Left end of spindle is recessed to receive M 162 glass-screw finishing tool.

M 134 Sheet Metal Hood, for polishing wheel.

M 11 One-speed Countershaft, for drills, polishing head, etc., with flat-faced or grooved pulley.

M 12 One-speed Countershaft, heavy construction, for bench surface machine, grindstone, etc.

The above countershafts consist of frame with tight and loose pulleys with extended shaft which allows of attaching any size or style of pulley up to 10 inches diameter. Shipper-rod is provided to throw belt from front of bench.

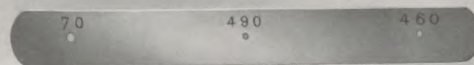
In ordering, specify whether flat-faced or grooved pulley and diameter required.

Above illustrations show countershafts as they are usually attached and belted from under side of bench top.





M153



M154



M155



M156



M157

# MISCELLANEOUS TOOLS AND SUPPLIES

## CATALOGUE NUMBER

## DESCRIPTION

- M 35 †Spherical Tools, for surface grinding,  $4\frac{1}{2}$  inches diameter (regular finish, in pairs, all curves).  
M 36 †Spherical Tools, all curves, same as No. M 35, except smooth finish.  
M 37 †Cylindrical Hand Tools,  $3\frac{1}{8} \times 5$  inches, all curves, regular finish.  
M 38 †Cylindrical Hand Tools, same as No. M 37, except smooth finish.  
M 39 †\*Cylinder or Toric Tools,  $2\frac{1}{4} \times 2\frac{1}{2}$  inches, for patented Cylinder and Toric attachment, all curves, regular finish, 3 D., 6 D. or 9 D. base.  
M 40 †\*Cylinder or Toric Tools, same as No. M 39, except smooth finish, 3 D., 6 D. or 9 D. base.  
M 41 †Metal Gauges, for above tools, all curves.  
M 42 Iron Blanks, for blocking lenses in surface grinding.  
M 43 Iron Blanks with Arms, for No. M 30 Toric attachment (see page 314).  
M 44 Special Blank, having nine pin holes for grinding prisms or correcting prismatic surfaces.  
M 45 Carborundum Slab, for truing grinding tools and grindstones.  
M 46 Wooden Block, for grinding strong sphericals.  
M 58 Diamond, for AOC Co Patented Factory Lens Cutter, mounted in stem.  
M 59 Diamond, for "Opticians' Favorite" Lens Cutter, mounted in stem.  
M 61 Patterns, for AOC Co Patented Factory Lens Cutter, all regular sizes.  
M 62 Pads, for AOC Co Patented Factory Lens Cutter, in sets of four.  
M 78 Patterns, for AMERICAN Automatic Edging Machine, regular sizes.  
M 102 Steel Lens Drill, in holder.  
M 103 Steel Lens Drills, without holders, in dozen lots.  
M 104 Splint Diamond Drill, in stem.  
M 105 Turned Diamond Drill, in stem.  
M 107 Steel Drills, for No. M 100 Hand Drilling Machine.  
M 108 Reamer, for lens drill in shank.  
M 109 Reamer (broach) only, without shank.  
M 153 Screw Taps, specify for what screws taps are wanted.  
M 154 Screw Plates, made with three holes (Nos. 70, 460, 490).  
M 155 Adjustable Screw Threading Dies.  
M 156 Temple Burrs.  
M 157 Solder Burrs.  
M 157-a Solder Burrs, style of No. M 157, with shank to fit hand broaching machines.  
M 158 Universal Screw Tap Set (see Material Section, pages 178 and 179).  
M 163 Blades, for No. M 162 Rounding Tool.

\*In ordering tools for use on Toric attachment specify whether Cylinder or Toric tools are wanted; if Toric, state also whether base curve should be 3, 6 or 9 D. For special Toric tools for roughing, see page 314.

† We supply all grinding tools and gauges in dioptric curves, for either index 1.507 or 1.5232.

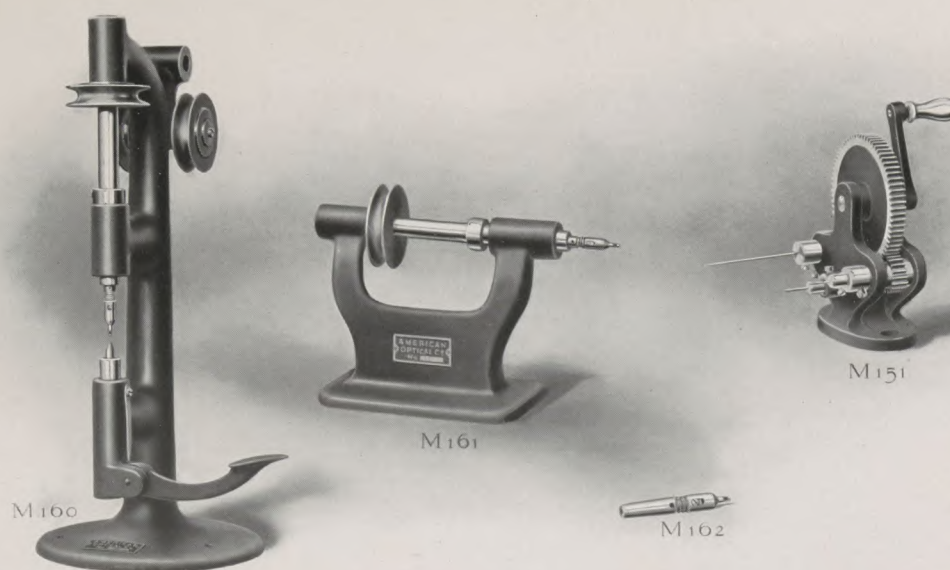
We re-turn grinding tools that are worn out of true.

New diamonds set in stems of any make lens drill or cutter.

Diamond drills re-sharpened and re-set.

In ordering cutting diamonds always state whether diamond is to be set for cutting Cx. and Pcx.; Coq., Toric, and Meniscus, or strong Cc. surfaces.





## MISCELLANEOUS EQUIPMENT

## CATALOGUE NUMBER

## DESCRIPTION

- M 151 Hand Tapping and Broaching Machine, with three spindles.

The holders take our standard taps or broaches and are geared to high speed. Machine may be fastened to bench, thus making a very handy and exceedingly useful bench accessory.

- M 152 Hand Tapping and Broaching Machine, with two spindles.

This machine is of the same type as our No. M 151, except that it has two spindles instead of three.

- M 160 Upright Glass-screw Finishing Machine.  
Extra for attaching to bench, including M 11 countershaft, belts and pulleys.

This machine is supplied with our No. M 162 Screw Finishing or Rounding Tool and is used for finishing glass screws after they have been inserted in straps and cut off. The use of this or our M 161 machine provides the only satisfactory method of finishing rimless work.

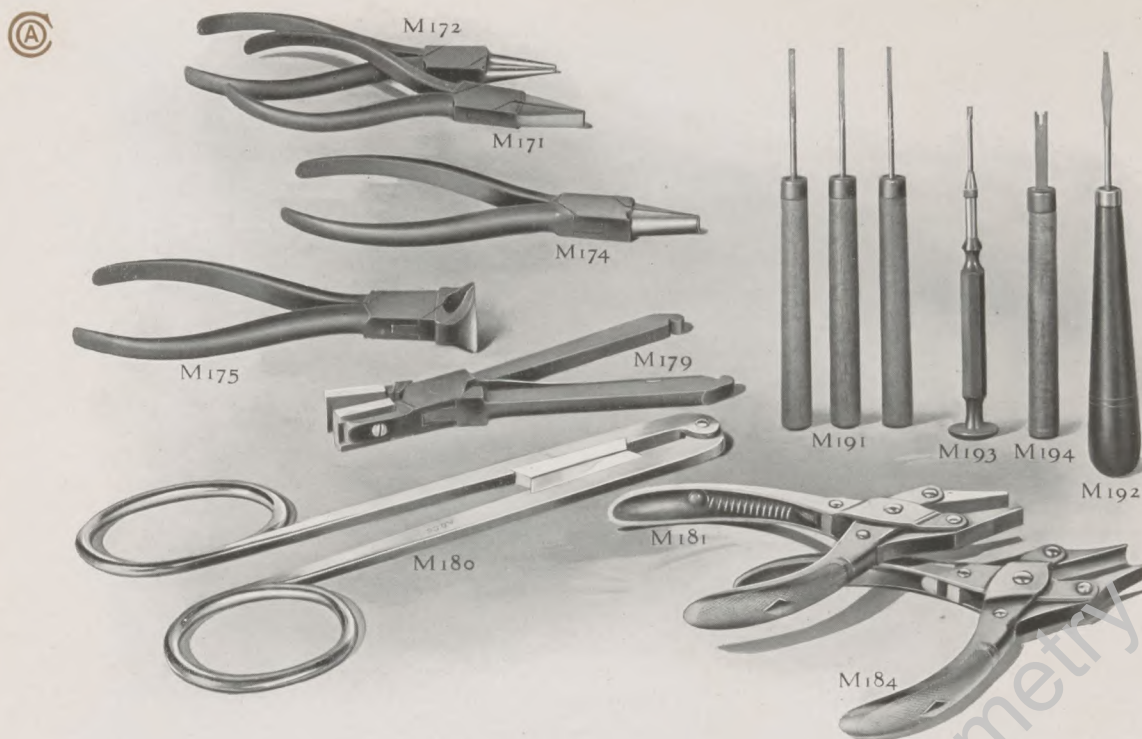
- M 161 Horizontal Glass-screw Finishing Machine.  
Extra for attaching to bench, including M 11 countershaft, belts and pulley.

The same work may be performed with this as with our No. M 160 machine, and we recommend it particularly because it requires but one hand to operate. Spindle is horizontal instead of upright. One end of spindle is equipped with our No. M 162 Screw Finishing or Rounding Tool furnished with the machine. The other end may be used for solder burr or reamer. Care must be exercised to see that No. M 160 and M 161 machines are belted to run the tool in the direction that will not loosen the screw.

- M 162 Screw Finishing or Rounding Tool, for glass screws.

This is the tool we furnish with our No. M 160 and M 161 machines listed above. It is a very delicate tool and blades must be honed occasionally to keep in perfect condition. Taper shank of tool will fit spindle chucks of our lens drills and polishing head. New blades may be supplied for this tool (see page 332). Full directions for care and operation supplied with each tool.





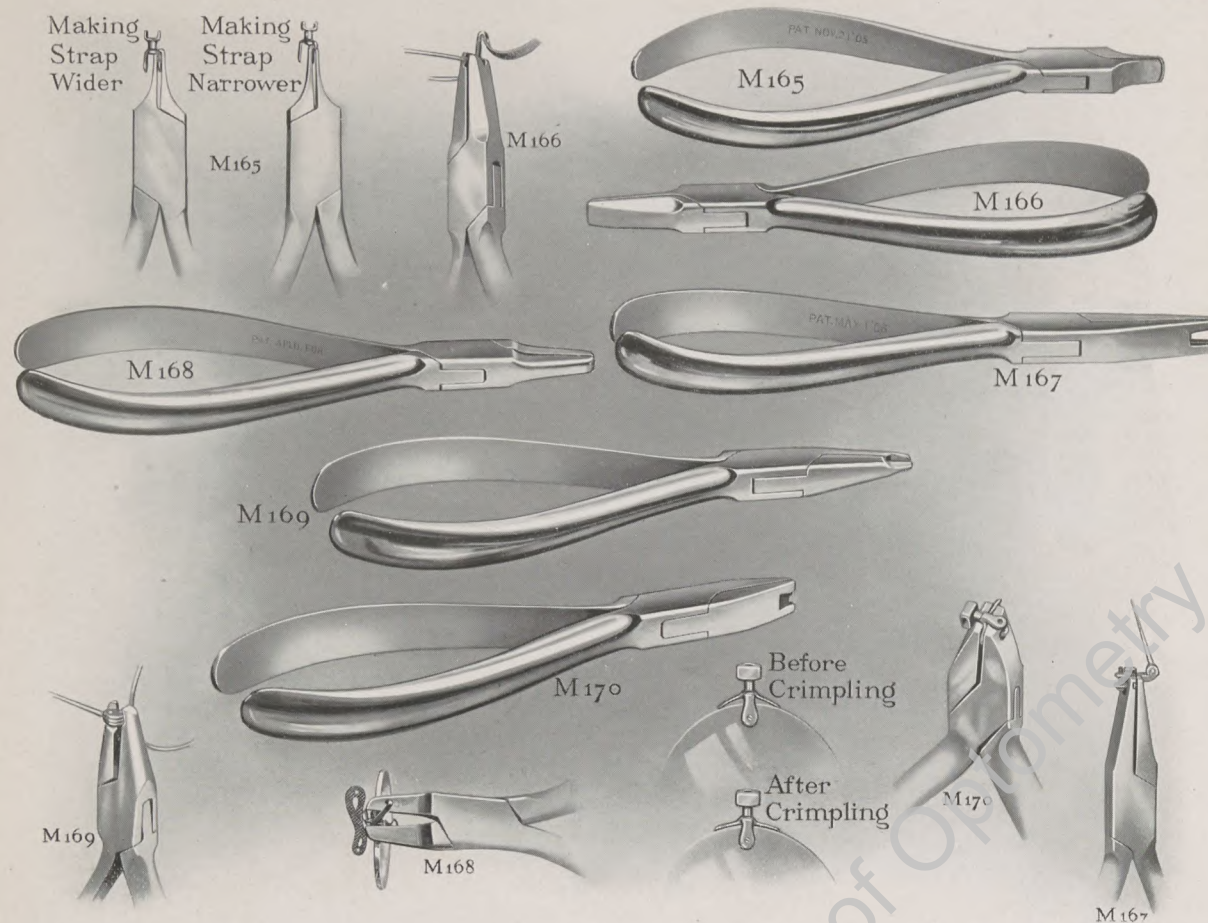
### MISCELLANEOUS TOOLS AND SUPPLIES

#### CATALOGUE NUMBER

#### DESCRIPTION

- M 171 AOC Co Special Pliers, 5-inch, flat nose, supplied black unless ordered in polished nickel.
- M 172 AOC Co Special Pliers, 5-inch, round nose, supplied black unless ordered in polished nickel.
- M 173 AOC Co Special Pliers, 5-inch, pointed nose, supplied black unless ordered in polished nickel.
- M 174 AOC Co Special Pliers, 5-inch, hollow chop, 3 sizes, supplied black unless ordered in polished nickel.
- M 175 AOC Co Special Pliers, 5-inch, end cutting, machine finish.
- M 176 AOC Co Special Pliers, 5-inch, side cutting, machine finish.
- M 177 AOC Co Special Pliers, 5-inch, for shaping rimless straps, nickel.
- M 178 Pliers, for crumbing lenses.
- M 179 Pliers, for crumbing lenses, with interchangeable jaws.
- M 179-a Interchangeable Iron Jaws, for No. M 179 Pliers.
- M 180 Tongs, for crumbing lenses.
- M 181 Pliers, parallel jaws, nickel-plated, flat nose.
- M 182 Pliers, parallel jaws, nickel-plated, narrow pointed nose.
- M 183 Pliers, parallel jaws, nickel-plated, round nose.
- M 184 Pliers, parallel jaws, nickel-plated, hollow chop, made in three curves.
- M 191 Screw Drivers, factory, set of three sizes.
- M 192 Screw Drivers, extra quality, rosewood handle, singly or set of three sizes (in leather case extra).
- M 193 Screw Drivers, opticians', rubber revolving top.
- M 193-a Bits, for opticians' screw drivers.
- M 194 Spanners, factory, for Ajax or Mansfield washers.
- M 194-a Spanners, for vise stud nuts, with square recess.
- M 195 Spanners, opticians', rubber revolving top, for Ajax or Mansfield washers.





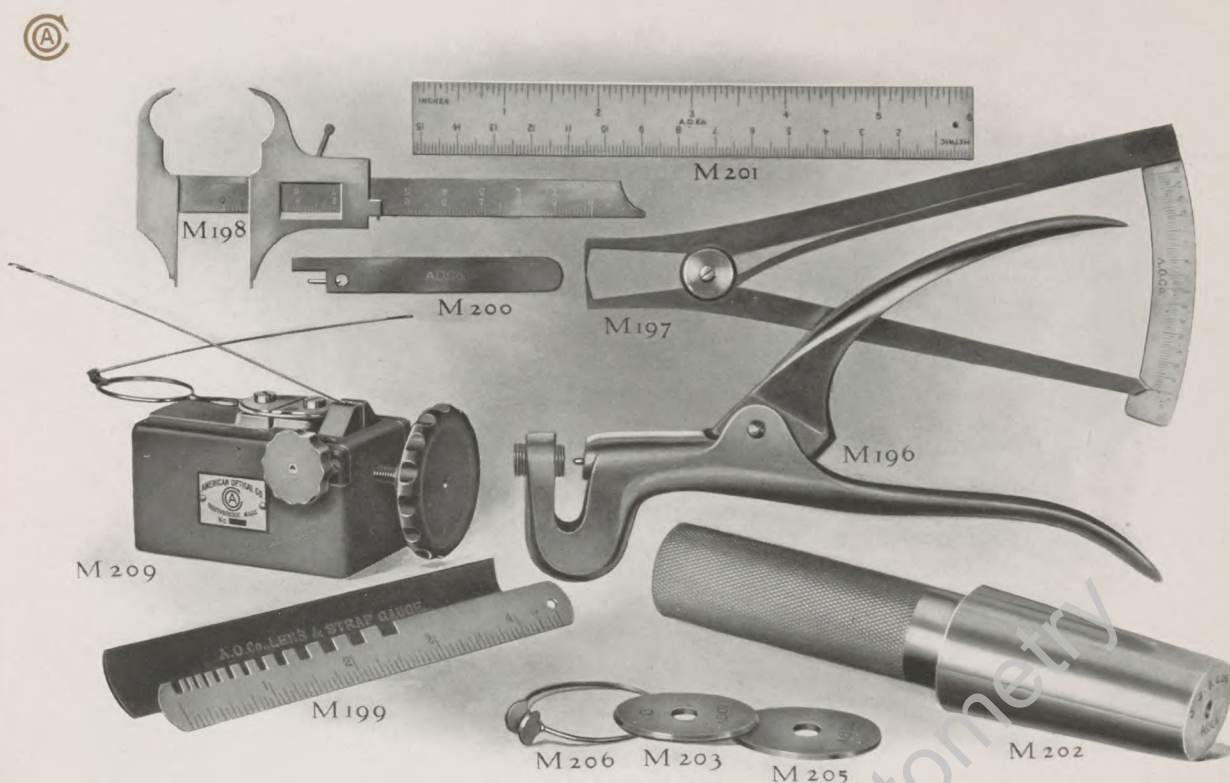
## MISCELLANEOUS TOOLS AND SUPPLIES

## CATALOGUE NUMBER

## DESCRIPTION

- M 165 Strap Pliers, for making frameless straps wider or narrower. May also be used to bend down the lens bearing parts to fit lenses that have been drilled too near the edge.
- M 166 Frame Angling Pliers, made especially for angling frame bridges or bending them "47" style.
- M 167 Frameless Angling Pliers, adapted for angling frameless temples, bridges and studs and for assembling frameless eyeglass mountings.
- M 168 Fitts-U Pliers, for truing and adjusting Fitts-U or other finger-piece eyeglasses. Also useful for gripping end pieces in truing temples and frames.
- M 169 Temple Adjusting Pliers, for gripping end pieces when setting temples out, making it unnecessary to file the temple joints.
- M 170 Crimping Pliers, particularly adapted for bending down lens bearing parts of frameless straps when hole has been drilled too near edge of lens. This result is accomplished in one operation.





# MISCELLANEOUS TOOLS AND SUPPLIES

CATALOGUE NUMBER

DESCRIPTION

- M 196 Spring Punch, small size, plain finish.  
Also furnished nickel-plated when so ordered at an extra charge.
- M 197 Spring Millimeter Gauge.
- M 198 Vernier Millimeter Gauge.
- M 199 AOCO Lens and Strap Gauge, with inch and millimeter scale, in case.
- M 200 Lens Drilling Gauge, for determining correct position of hole.
- M 201 Ivoryette Rule, inch and millimeter, 6 inches long.
- M 202 Hand Formers, tempered steel, nickel-plated, for shaping eyes, from 3 eye to oo eye.
- M 202-a Hand Formers, tempered steel, nickel-plated, for shaping eyes, ooo eye to Jumbo.
- M 203 AOCO Standard Hard Eye Plates, for sizing frames, oval or round eyes, all regular sizes and shapes.
- M 204 AOCO Standard Hard Eye Plates, for sizing frames, half eyes.
- M 205 AOCO Standard Hard Eye Plates, for rimless lenses, oval or round eyes.
- M 206 AOCO Standard Eye Sizers, for sizing interchangeable lenses.
- M 207 Mounting Stand, for assembling eyeglasses.
- M 208 Eyeglass Assembling Tool, on bench pin.
- M 209 Eyewire Stretcher.

For slightly stretching the eyewire of a frame to accommodate a lens which may have been ground a little too large. Eyewire is slipped over a split eyeplate the halves of which are drawn apart by turning thumbscrew while end piece is held between jaws as illustrated. A great time saver in Rx shops.





## MISCELLANEOUS TOOLS AND SUPPLIES

## CATALOGUE NUMBER

## DESCRIPTION

- M 251 Electric Heater, for cement bifocal work.  
 M 252 Protractors, steel engraved, 5 inches square.  
 M 253 Protractors, printed,  $3\frac{1}{2}$  inches square.  
 M 255 Testing Needles, for matching karat, set of nine on ring.  
 M 256 Crystal Balls, 10 cm. diameter, on ball-end wire tripod.  
 M 256-a Crystal Balls, 10 cm. diameter, on plain wire tripod.  
 M 256-b Crystal Balls, 10 cm. diameter, on velvet covered standard.  
 M 256-c Crystal Balls, 10 cm. diameter, on carved Japanese stand.  
 M 256-d Crystal Balls, 10 cm. diameter, on fancy carved Japanese stand.  
 M 257 Color Bar, smoke shades, 0 to 7.  
 M 258 Spiral Eyeglass Magnifiers, in case, 16 D. focus (state focus in ordering).  
 M 258 Spiral Eyeglass Magnifiers, in case, 20 D. focus (state focus in ordering).  
 M 258 Spiral Eyeglass Magnifiers, without case, 16 D. focus (state focus in ordering).  
 M 258 Spiral Eyeglass Magnifiers, without case, 20 D. focus (state focus in ordering).  
 M 259 \*Folding Eyeglass Magnifiers, in case, 16 D. focus (state focus in ordering).  
 M 259 \*Folding Eyeglass Magnifiers, in case, 20 D. focus (state focus in ordering).  
 M 259 \*Folding Eyeglass Magnifiers, without case, 16 D. focus (state focus in ordering).  
 M 259 \*Folding Eyeglass Magnifiers, without case, 20 D. focus (state focus in ordering).  
 M 260 Glass, white or colors for display purposes, in chunks.  
 M 261 Focus Tags, cut to size, put up in envelopes in gross lots.  
 M 262 Rubber Tubing, for Riding Temples, sold by the foot.  
 M 264 Geneva Lens Measure.  
 M 265 Amoptiscope Display Stand, oak wax mission finish.

\* Patented.

In ordering magnifiers specify whether with or without case and state focus desired.  
 For illustrations of M 252 and M 253, see page 260.





## MISCELLANEOUS SUPPLIES

CATALOGUE NUMBER	DESCRIPTION
M 301	Emery, best grade, for roughing, in 5-pound cans.
M 302	Emery, fine grade, dry, for smoothing, in 5 pound cans.
M 303	* Emery, extra fine grade, dry, for finishing, in 5 pound cans.
M 306	Felt, cut in round pieces, 10 cm. diameter.
M 308	Polishing Compound (Rouge), wet mixed, for polishing lenses, best quality, in 5-pound cans.
M 309	Polishing Compound (Rouge), dry powdered, for polishing lenses, best quality, in 5-pound cans.
M 310	Rouge Ball, extra fine quality.
M 311	Soft Pitch, in 5-pound packages.
M 312	Pitch, in 5-pound packages.
M 312 1/2	Pitch, in 6-ounce sticks.
M 313	Tripoli.
M 314	Wax.
M 315	Pumice, powdered.
M 316	Cement, for Cement Bifocal Lenses, in 1-ounce bottles.
M 317	Cement, for Cement Bifocal Lenses, in tubes.
M 318	Cement, for Perfection Bifocal Lenses, in sticks.
M 319	Melange, a preparation for drilling lenses, in 2-ounce bottles.
M 320	Ink, for marking axis or center on lenses, in 1-ounce bottles.
M 321	Polisher Cement, in 3-pound cans.

\* A special extra fine emery for high-grade lens finishing, can be furnished.  
Prices quoted by wholesalers upon application.





## MISCELLANEOUS POLISHING SUPPLIES

## CATALOGUE NUMBER

## DESCRIPTION

M 135	Polishing Wheel, leather covered on edge, 7 inches diameter, 1 inch thick.
M 136	Brush Wheel, 2 rows, 2½ inches diameter.
M 137	Brush Wheel, 5 rows, 5 inches diameter.
M 138	Buff Wheel, 50 ply, 3 inches diameter.
M 139	Buff Wheel, 50 ply, 4 inches diameter.
M 140	Buff Wheel, 50 ply, 6 inches diameter.
M 141	Cotton Ring Buff, 3 inches long.
M 142	Felt Ring Buff, 3 inches long.
M 143	Buff Sticks.
M 144	Felt Wheel, for polishing edge of lenses, 6 x 1½ inches.
M 145	Felt Wheel, for polishing edge of lenses, 14 x 1¾ inches.

Prices on AOCo belting, pulleys, shafting, etc., quoted by wholesalers upon application.





## CASE LETTERING MACHINERY

## CATALOGUE NUMBER

## DESCRIPTION

- M 331 Case Lettering Press only (without bench), with clamp holder for dies, gas burner and wrench.  
 M 6 Bench complete, 4 feet long, 2 feet 1 inch wide, with M 331 Case Lettering Press and two type cases.  
 Extra charges are made for additional type cases, No. M 339, attached to bench.  
 An extra charge is made if M 6 Bench is required to be specially crated for foreign shipment.

The AOC Co Case Lettering Press was designed by us as the result of many years' experience in gold leaf lettering on eyeglass and spectacle cases. In construction and design it conforms to all requirements for simplicity, ease of operation and uniformly satisfactory results. This press has the general endorsement of all representative wholesalers. It may be readily attached to any work bench, or we will supply a bench with the press installed ready for use.

An adjustable gas burner provides the means for heating type or die.

An electric heating attachment may be supplied with this press at an extra charge when so ordered.

For material and supplies used in Case Lettering, see following page.



NO. 11 AMERICAN OPTICAL CO.

*No. 12 American Optical Co.*

NO. 13 AMERICAN OPTICAL CO.

*No. 14 American Optical Co.*

No. 15 American Optical Co.

**No. 16 American Optical Co.**

No. 17 American Optical Co.

No. 18 American Optical Co.

*No. 19 American Optical Co.**No. 20 American Optical Co.*

NO. 21 AMERICAN OPTICAL CO.

**No. 22 American Optical Co.****No. 23 American Optical Co.**

## CASE LETTERING SUPPLIES

## CATALOGUE NUMBER

## DESCRIPTION

- M 333 Pallets, for three lines of type, size of form  $\frac{9}{16} \times 1\frac{5}{8}$  inches.
- M 334 Pallets, for four lines of type, size of form  $\frac{11}{16} \times 1\frac{5}{8}$  inches.
- M 335 Pallets, large, for six lines of type, size of form  $1\frac{1}{16} \times 1\frac{5}{8}$  inches.
- M 336 Pallets, extra large, size of form  $1\frac{1}{8} \times 2\frac{1}{2}$  inches.
- M 337 Curved Form, small size, for setting type in circle.
- M 338 Curved Form, large size, for setting type in circle.
- M 339 Type Cases.
- M 340 Brass Ornaments, assorted.
- M 341 Brass Reglet, for spacing between lines, one dozen pieces in package.
- M 342 Pad on which gold leaf is cut.
- M 343 Sandstone, for dressing above pad.
- M 344 Gold Leaf Cabinet, glazed.
- M 345 Gold Leaf Cabinet, frame only, without glass.
- M 346 Gold Leaf, best quality, package of 500 leaves  $3\frac{3}{8} \times 3\frac{3}{8}$  inches.
- M 347 Knife, for cutting gold leaf.
- M 348 Sizing, in  $2\frac{1}{2}$ -ounce bottle.
- M 349 Sizing Powder, in  $\frac{1}{2}$ -ounce bottle.
- M 350 Absorbent Cotton, in packages.
- M 351 Car-Mu-Cha, for removing superfluous gold leaf, in  $\frac{1}{4}$ -pound cans.
- M 352 Metal Block, for use in lettering flat eyeglass cases.
- M 353 Metal Block, for use in lettering self-closing cases.
- M 354 Metal Block, for use in lettering Nos. 306, 463 and 473 cases.
- M 355 Wooden Block, for use in lettering straight temple cases.
- M 356 Wooden Block, for use in lettering paper form, riding temple cases.
- M 357 Brass Type, for case lettering (see illustration above). Fonts Nos. 13 and 21 each contain 100 pieces type. Other fonts contain 175 pieces each. Order by catalogue number, stating number of font.



## BOXES

Not Printed, Sold in Lots of 1000\*

CATALOGUE NUMBER	DESCRIPTION
M 401	Covered with glazed paper, for one dozen 1 eye lenses, $4\frac{3}{4} \times 1\frac{1}{4} \times 1\frac{1}{4}$ inches.
M 402	Same as No. M 401, except for 0 or 00 eye lenses, $5\frac{1}{4} \times 1\frac{1}{4} \times 1\frac{1}{4}$ inches.
M 404	Same as No. M 401, except for 000 eye lenses.
M 405	For Edged Perfection Bifocal Lowers and Edged Segments.
M 406	For Uncut Wafers, $2\frac{5}{8} \times 1\frac{3}{8} \times 1\frac{1}{2}$ inches.
M 407	For Uncut Wafers, $2\frac{5}{8} \times 1\frac{5}{8} \times 1\frac{1}{2}$ inches.
M 408	For Opifex Wafers.
M 409	For Small Size Oval Uncut Spherical Lenses, $6 \times 4 \times 1\frac{3}{4}$ inches.
M 410	For Large Size Oval Uncut Spherical Lenses, $7 \times 4 \times 1\frac{3}{4}$ inches.
M 411	For Large Oval or Round Uncut Spherical Lenses, $6 \times 4\frac{1}{2} \times 2$ inches.
M 412	For Uncut Sphero Cylinder Lenses, $6 \times 2\frac{1}{2} \times 2\frac{1}{4}$ inches.
M 415	Slide Box, for frames, size inside 6 inches long.
M 416	Slide Box, for frames, size inside 5 inches long.
	The above sizes are approximate only and unless otherwise ordered we supply plain white boxes without labels of any kind.
M 420	Mailing Box, for eyeglasses.
M 421	Same as No. M 420, except for riding spectacles.
M 422	Same as No. M 420, except for straight temple spectacles.
M 423	Mailing Box, for compound lenses, size $2 \times 2 \times 2$ inches.
M 424	Same as No. M 423, except larger, size $3 \times 2 \times 2$ inches.
M 425	Same as No. M 423, except larger, size $4 \times 2 \times 2$ inches.

\*For quantities of less than 1000 boxes at a time an extra charge is made.

## PAPER AND ENVELOPES

Paper Sold by the Pound, Envelopes by the Thousand

CATALOGUE NUMBER	DESCRIPTION
M 431	Extra-quality White Tissue, anti-tarnish, size $9 \times 10$ inches, for wrapping stock or prescriptions.
M 432	Oiled Paper, for wrapping steel goods, size $7\frac{1}{2} \times 9$ inches.
M 435	Anti-tarnish Envelopes, $1\frac{3}{4} \times 3\frac{1}{4}$ inches.
M 436	Anti-tarnish Envelopes, $2 \times 4\frac{3}{4}$ inches.
M 437	Anti-tarnish Envelopes, $2 \times 6\frac{1}{2}$ inches.
M 438	Anti-tarnish Envelopes, $2\frac{1}{2} \times 4\frac{1}{4}$ inches.
M 439	Anti-tarnish Envelopes, $2\frac{7}{8} \times 5\frac{1}{4}$ inches.
M 440	Anti-tarnish Envelopes, $3\frac{3}{8} \times 6$ inches.
M 441	Anti-tarnish Envelopes, $1\frac{7}{8} \times 3\frac{3}{4}$ inches.
	An extra charge per 1000 is made for printing above envelopes.
M 442	Envelopes, for Sphero Cylinder Lenses, $2 \times 2$ inches, white.
M 443	Envelopes, for Sphero Cylinder Lenses, $2 \times 2$ inches, pink.



## CONTENTS AND INDEX





# PROPERTY OF CHICAGO COLLEGE OF OPTOMETRY LIBRARY

## CONTENTS

This catalogue is conveniently arranged in twelve principal sections  
and index as outlined below

Section	Pages
Introductory - - - - -	1-38
Gold and Silver Spectacles and Eyeglasses -	39-66
Gold-filled Spectacles and Eyeglasses - -	67-90
Steel, Alumnico, Alumnica, German Silver, Roman Alloy and Regaloid Spectacles and Eyeglasses - - - - -	91-138
Finger-piece Eyeglasses - - - - -	139-148
Material for Spectacles and Eyeglasses - -	149-182
Automobile Goggles, Driving and Shooting Spectacles - - - - -	183-190
Spectacle and Eyeglass Lenses, Blanks, etc. -	191-228
Trial Sets, Trial Frames and Accessories -	229-272
Spectacle, Eyeglass, Goggle and other Cases -	273-286
Eyeglass Chains, Hairpins, Hooks, Ear Loops, Cords and Material, Automatic Eyeglass Holders - - - - -	287-302
Optical Machinery, Tools and Supplies - -	303-342
Contents and Index - - - - -	343-347
Branch Offices, Publications, etc. - - -	348

Goods shown and described in this catalogue may be purchased from  
leading wholesalers throughout the world



## INDEX



# PROPERTY OF INDEX—Continued CHICAGO COLLEGE OF OPTOMETRY

	Page		Page
Fitting Sets, Finger-piece	144, 148	Lens Drilling Machinery	322-327
Fitting Sets, Spectacle	259	Lens Edge Grinding Machinery	315-317
Focus Tags	337	Lens Measure	337
Formers	336	Lens Wipers	286
Frame Measure	271	Lenses	191-228
Gauges for Grinding Tools	332	Lenses, Bifocal	208, 209-222-224
Gauges, Millimeter	336	Lenses, Blanks for	226
Gauze Guards	167	Lenses, Coquille	220
German Silver	93, 129-131	Lenses, Cylinder	214, 215
Glass, Blanks of	226	Lenses, Dioptral Systems for	205
Glass, Chunks of	227, 337	Lenses, Forms of	206, 207
Glass Front Trial Sets	244, 245	Lenses, Goggle	184, 228
Glass, Kinds of	198	Lenses, Instruction for Ordering	199
Glass Screws	178-180	Lenses, Kryptok	223, 224
Glass, Sheets of	227	Lenses, Meniscus	212, 213
Glass Top Trial Sets	240, 241, 254, 255	Lenses, Mi-coquille	220
Goggles	183-190	Lenses, Periscopic	207, 212, 213
Goggle Cases	285	Lenses, Plano	218, 219
Goggles, Lenses for	184, 228	Lenses, Prism	205, 207, 221, 256
Gold	39-64	Lenses, Rough	216, 217
Gold-filled	67-90	Lenses, Secons	225
Gold Leaf	341	Lenses, Sizes of	29, 204
Grab Front Assortments	38	Lenses, Spherical	207, 212, 213
Grab Front Frames	51, 83, 99, 118, 134	Lenses, Stock of	201
Grab Front Mountings	61, 88, 109, 125	Lenses, Stock Foci and Code for	202
Grab Temples	57, 81, 106, 122, 154, 155	Lenses, Toric	210, 214, 215
Grinding Machinery, Edge	315-317	"L. G." Guards	168
Grinding Machinery, Surface	309-314	Liebold Bridges	30, 38
Guards	147, 163-168	Like Knot Springs	160
Hairpin Chains	291, 294, 297	Ludlow Guards	167
Hairpins	299	Machinery	303-342
Half Eye	29	Magnifiers (see also Amoptisopes)	337
Half-riding Temples	152, 154, 155	Mailing Boxes	342
Handles	156, 157	Mansfield Mountings	173
Hangers	157	Material for Spectacles and Eyeglasses	149-182
Historical	10-19	Measure, Frame	271
Holders, Automatic Eyeglass	290, 302	Measure, Lens	337
Hood for Polishing Head	331	Measuring Frame	271
Hook Chains	292, 295, 297	Measurements for Spectacles	28
Hook Guards	168	Medio Grab Front Frames	51, 83, 99, 118
Hooks	300	Medio Grab Front Mountings	61, 88, 109, 125
Hoop Bridges	30, 36, 37	Melange	338
Hoop Springs	158, 159	Meniscus Lenses	212, 213
Horseshoe Eye Frames	50, 84, 101, 123	Mi-coquille Lenses	220
Horseshoe Eye Lenses	29, 204	Miscellaneous Material	181, 182
Ideal Post Screw Lock	170	Monocles	54, 78
Ideal Screw Assortments	178, 179	Mounting Stand	336
Information for Ordering Cases	277, 278	Narrow Cylinder Bridge	30
Information for Ordering Chains	280, 290	Neutralizing Sets	257
Information for Ordering Frames, etc.	21-24	Office Trial Sets	236-245, 254, 255
Information for Ordering Lenses	199-200	"O" Guards	167
Information for Ordering Machinery	304, 305	Open Post Eyeglasses	57, 78, 103
Information for Ordering Trial Sets	230-232	Opifex Wafers	208, 209
Ink	338	Orders	See Information for Ordering
Introduction	9	Oval Wire Bridges	30
Invisible End Piece	58, 60, 62, 84, 86, 88, 107, 112, 123, 125	Oxfords	54, 78
Ivoryette Rule	336	Pad, Gold Leaf	341
Japtol Cases	275, 281	Padded Tip Temples	45, 96, 115, 154, 155
Joints	152, 153	Pads, Lens Cutter	332
Jump Rings	301	Pallets	341
"K" Bridges	30, 38	Paper	342
Keep Strait Springs	160	Patented Lines	27
Kolle Guards	166	Patterns, Edging Machine	332
Kolle Studs	172	Pear Tip Temples	70, 153, 154
Knife	341	Pearl Eyeglasses	147
Kryptok Lenses	223, 224	Perfection Bifocals	208, 222, 223
Lens Cutting Machinery	318-321	Periscopic Lenses	207, 212, 213
Lens Drilling Gauge	336	Physicians' Trial Sets	252, 253
		Pitch	338



535  
A35

6328



109550

PROPERTY OF  
CHICAGO COLLEGE OF OPTOMETRY



The Carl F. Shepard Memorial Library  
ILLINOIS COLLEGE OF OPTOMETRY  
3241 S. Michigan Avenue  
Chicago 16, Illinois

RE981  
.A5  
1912

6328

Digitized by Illinois College of Optometry



AMERICAN  
OPTICAL  
COMPANY

Digitized by Illinois College of Optometry